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SHANKAR IAS ACADEMY

JANUARY 2024

1. IMPORTANT TOPICS OF THE MONTH

1.1 Japan Tsunami

Why in News?

Tsunami waves hit several parts of Japan's coastal areas and urgent evacuation warnings were issued after a 7.6-magnitude earthquake shook the country's north-central region.

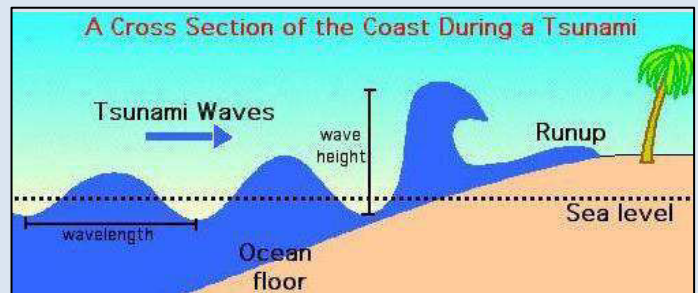
What is Tsunami?

- **Tsunami**– A Japanese word meaning **harbour wave**.
 - Tsu – harbour; nami - wave.
- It is a **series of giant ocean waves** caused by earthquakes or volcanic eruptions under the ocean.

Submarine earthquakes have generated about 80% of all tsunami events recorded globally.

Scientific Basis of Tsunami – Earthquake based

- **Movement of plates** – The Earth's lithosphere is broken up into a bunch of discrete pieces, called plates and there are 7 or 8 major plates and many minor plates.
- These plates move around the surface of the planet which are driven by the flow of the mantle rock beneath the plates and by the forces plates exert at their boundaries where they touch each other.
- **Earthquakes** – Movement of plates with respect to each other causes friction and stress at the edges thus causing earthquakes.
- **Tsunami** – When 1 plate is forced to dive beneath another plate, there is no way to do it except with some component of vertical motion creating tsunami.
- Tsunamis are often incorrectly called tidal waves and have no relation to the daily ocean tides.



- **Physical attributes**
 - It can be 100's of feet tall.
 - It can travel as fast as jet planes over deep waters.
 - It slows down the travel speed on reaching shallow waters.
 - It has a long wavelength and period (time between crests) which can vary.
- **Lifetime of a tsunami** – It can be divided into 3 stages namely generation, propagation, and run-up.
- **The power of a tsunami** – It is highly dependent on 2 factors.
 - **The tide** – At high tide the tsunami will be able to do much more damage than at low tide.
 - **Seafloor morphology** – It alters the tsunami height by changing the ratio between their wavelength and wave height.
 - In general, this ratio decreases as the wave travels into shallower water, causing the tsunami to grow in size.
- **Sea depth** - As the sea depth decreases, the wavelength decreases and the height increases.
- **Size** – It is also influenced by the topography of the coastline.
- **Numbers** – There may be more than one wave and the succeeding one may be larger than the one before.
- That is why a small tsunami at one beach can be a giant wave few kilometres away.

The wavelength is a factor which distinguishes tsunamis from wind waves, a tsunami wavelength can be more than 200 km long which is considerably longer than a wind wave wavelength.

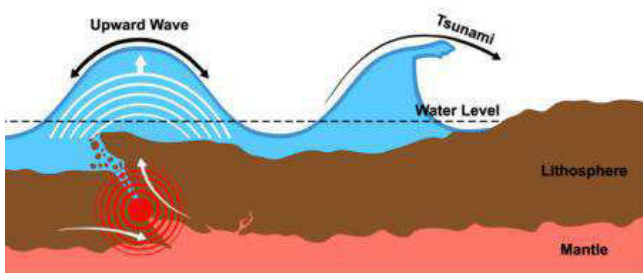
What are factors responsible for the occurrence of Tsunami?

- **Earthquake tsunami** – When earthquake occurs under the ocean, a large chunk of the ocean floor can suddenly move upward or downward, leading to a sudden displacement of a large volume of water, thereby causing tsunami waves.
- All earthquakes do not cause tsunamis and there 4 conditions necessary for it to cause a tsunami.
- **Volcano tsunami**– When volcano erupts under the sea, the lava flowing out of the volcano displaces the water around it and that water can become a large wave.
- However, not all volcanic eruptions lead to tsunamis.
- **Erosion tsunami** – Large erosion of ocean floor displaces the water leading to displacement of water.
- **Extra-terrestrial collision**– Although no meteor/asteroid induced tsunami has been recorded in recent history, if they strike the ocean, a large volume of water would be displaced to cause a tsunami.
- **Landslide tsunami** – A landslide along the coast and underwater landslides can also disturb the water and generate a tsunami.
- The tsunamis generated tend to be relatively localized and typically do less damage than the earthquake generated tsunamis.

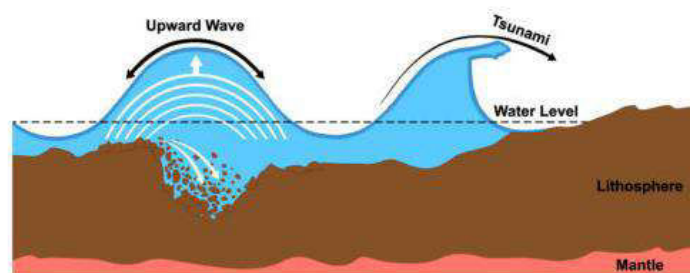
Conditions for an earthquake to cause Tsunami

- It must occur beneath the ocean or cause the material to slide into the ocean.
- It must be strong, at least magnitude 6.5 on the Richter Scale
- It must rupture the Earth's surface and it must occur at shallow depth – less than 70km below the surface of the Earth.
- It must cause vertical movement of the seafloor (up to several meters).

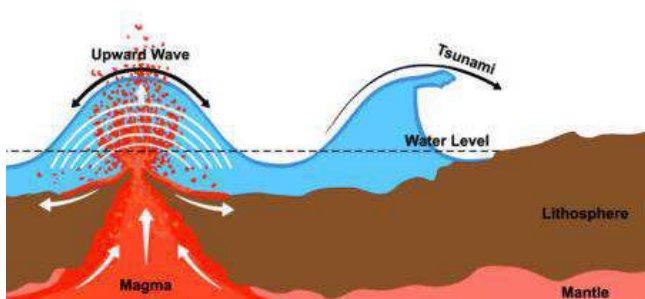
Earthquake Tsunami



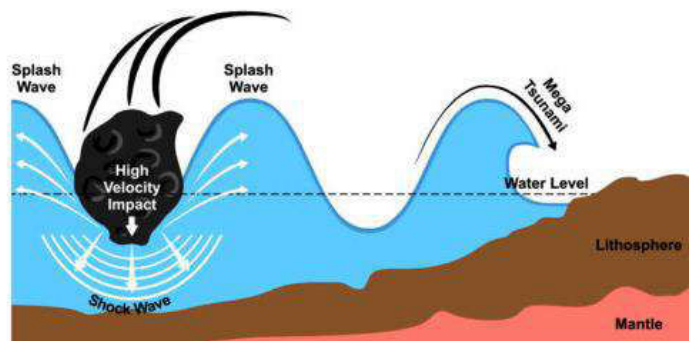
Erosion Tsunami



Volcano Tsunami



Falling Meteors Mega Tsunami



What are the effects of tsunami on life and economy?

- The effects of a tsunami depend on the characteristics of the seismic event that generate it
 - The distance from its point of origin
 - Its size (magnitude)
 - The configuration of the bathymetry (the depth of water in oceans) along the coast.

- **Loss of Life** – Most deaths caused by tsunamis are because of drowning.
- **Flooding** – They arrive as forceful rapid increase in water levels that results in violent flooding.
- **Diseases** – Illnesses such as malaria arise when water is stagnant and contaminated.
- **Damages to key infrastructures** – Objects and buildings are destroyed by the sheer weight of the water, often reduced to skeletal foundations and exposed bedrock.
- **Fires** – Ruptured tanks or gas lines can damage life and property along with power supply.
- **Environmental impacts** – It has devastating effect on insects, animals, plants, and natural resources.
- **Changes the landscape** – By uprooting trees and plants and destroys animal habitats such as nesting sites for birds.
- **Waste management issues** – It dumps enormous solid waste and disaster debris.
- **Salination of water bodies** – Infiltration of sea water into freshwater bodies.
- **Contamination of drinking water** – Seawater along with carried debris contaminate groundwater and other water bodies.
- **Radiation issue** – There may be radiation resulting from damage to nuclear plants, as it happened in **Japan in March 2011**.
- **Economical losses** – Reconstruction and clean up after a tsunami has costs huge.
- **Psychological effects** – Victims of tsunami events often suffer psychological problems like PTSD (post-traumatic stress disorder).

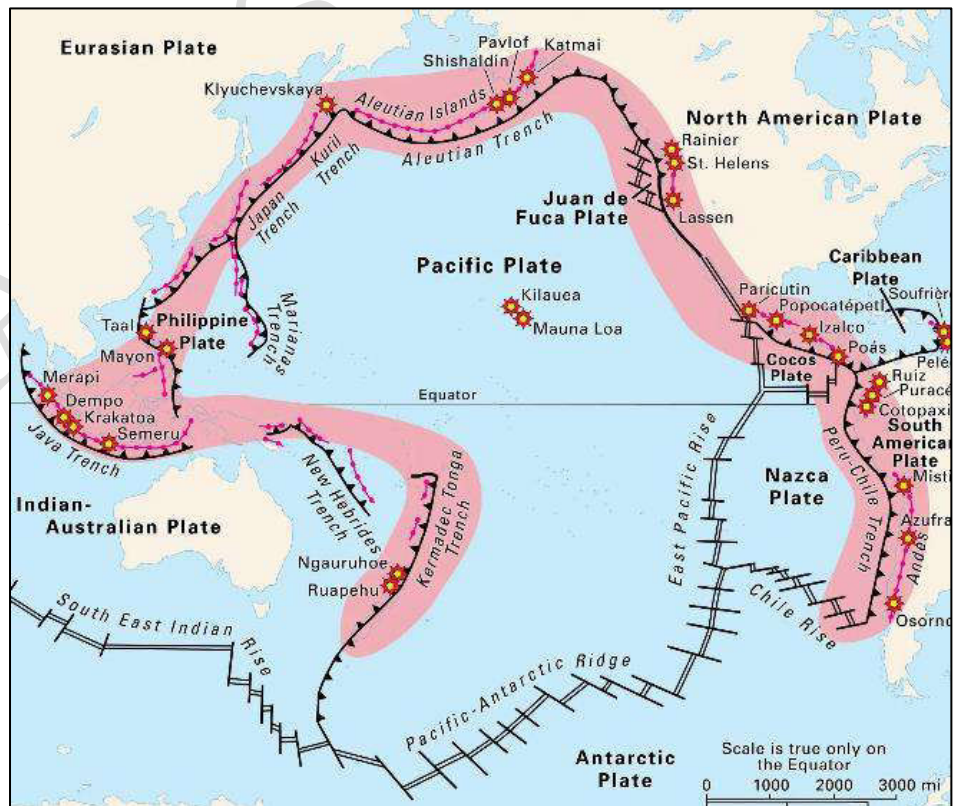
India is one of the 10 worst disaster prone countries in the world.

What are risks and vulnerability of India with respect to Tsunami?

- **Vulnerability profile** – Of the 7516 km long coastline, **close to 5700 km is prone to tsunamis**.

- The geo-centric movement inside the ocean floor makes the coastal region prone to tsunami.

- **Tsunamigenic zones in Indian Coast - Both the east and west coasts of India and the island regions** are likely to be affected by **tsunamis from the 5 potential source regions**
 - The Andaman-Nicobar Sumatra island arc
 - Indo-Burmese zone,
 - Nascent Boundary (in the central Indian Ocean)
 - Chagos archipelago
 - Makran subduction zone



- **Urbanization increases vulnerability** – For instance, about **25% of the Indian population lives within 50 km of the coastal line** and these people are vulnerable to river flooding, and coastal surges following cyclones or tsunamis.
- **Tsunami in Indian Ocean occurred on 26th December 2004**, the hardest hit areas were on the Southern coast of Andaman and Nicobar Islands.

Why is Japan prone to earthquakes and tsunamis?

- **Location** – It is situated along the '**Pacific Ring of Fire**', the most active earthquake tectonic belt in the world.
- Within the Ring of Fire, there are **different tectonic belts**, which keep meshing and colliding with each other, causing earthquakes, volcanic eruptions and tsunamis.
- In 2011, Japan was hit by a 9.0 magnitude earthquake accompanied by a tsunami leading to a nuclear meltdown at the **Fukushima power plant**, the most severe nuclear accident since the 1986 Chernobyl disaster in the Soviet Union.

What are the mechanisms for preparedness to reduce the risk as per NDMA?

- **Awareness generation** –SDMAs & DDMA's will conduct regular public awareness campaigns for **familiarising communities in coastal areas with the tsunami early warning mechanisms**.
- **Early warnings** - Effective dissemination of tsunami alert and warning messages to the concerned agencies and coastal vulnerable communities.
- **Capacity building** – It involves effective emergency response by involving local police network, civil defence volunteers, home guards, State and National Disaster Response Force.
- **Education** – NDMA has initiated the efforts in collaboration with nodal agencies like the UGC, ICAR, etc. to include DM in the educational curricula.
- **Training** – **National Institute of Disaster Management** at the national level have been tasked to train administrative personnel from all Ministries and departments in DM.
- **Research & development** - For better tsunami risk management.
- **Structural Mitigation measures** – A brief guidance on design and construction of new structures as well as strategies for protecting lifeline and priority structures from Tsunamis.
- **Techno-legal regime** – It shall be brought through efficient land use practices, bio shields, shelter belt plantation and mangrove regeneration with community involvement.
- Further, it explore the provisions of **Disaster Management Act 2005** to mainstream concern of Tsunami risk management in disaster management plans of various levels.

Indian National Centre of Ocean Information Services (INCOIS) is the Nodal agency for Tsunami related early warning system.

India's Tsunami relief operations	National Disaster Management Authority (NDMA)
<ul style="list-style-type: none"> • Maldives – Under "<u>Operation Castor</u>", aircraft and Naval ships were engaged in relief operations, after the <u>2004 Tsunami</u>. • Sri Lanka – Under "<u>Operation Rainbow</u>", India sent its forces to carry out rescue operations, after the <u>2004 Tsunami</u>. 	<ul style="list-style-type: none"> • Established by – NDMA Act 2005. • Role – <u>Apex body for Disaster Management (DM)</u> in India. • To lay down the policies, plans and guidelines for disaster management for timely and effective response to disasters. • Headed by - Prime Minister of India.

G.S PAPER I

2. HISTORY

2.1 Pre-Independent Feminist Movements in India

Why in news?

Pre-independence feminist movements played a crucial role in guaranteeing women's rights in the Constitution.

How the women suffrage movement evolved?

- **Enfranchise women**- In 1917, a group of women activists, led by Annie Besant and Margaret Cousins made the first official call to Edwin Montague and Lord Chelmsford who had been tasked to formulate scheme of self-governance for India.

- **Women's Indian Association-** It was formed in 1917 to address the socio-economic challenges faced by women.
- It was the first national body to advocate for female suffrage.
- In 1918 the Women's Indian Association and others intensified their advocacy travelling to Britain to garner support for their causes.
- **Role of Sarojini Naidu-** She took the women's right to Indian National Congress moving resolutions for women's enfranchisement at Congress sessions in Bijapur (1918) and Bombay (1919).
- **Government of India Act 1919-** The first victory came with the enactment of this Act that allowed provincial legislatures to enfranchise women.
- In 1921 Madras become the first province to grant women the right to vote, followed by Bombay and the United Provinces.
- **Bengal Legislative Council-** The enfranchisement bill was defeated in this council, suffragists led by the Bangiya Nari Samaj organised massive awareness campaigns for 4 years, leading to the passage of the Bill in 1925.
- **Conditional suffrage-** The right to vote was conditional upon the ownership of property, income and other statuses while excluded a sizeable number of women.
- **Lack of representation-** The women still did not have the right to sit in legislative bodies. They continued to demand equal civic rights for all citizens, regardless of gender, religion or caste.
- **All India Women's Conference-** AIWC believed that women's emancipation was not possible without reforming the various religious laws (personal codes).
- **Nehru Report-** It is a draft Constitution prepared by an All Parties Conference in 1929, it proposed joint electorates with reservation of seats for minorities, but not for women.
- British government was not keen on expanding the political rights of Indians, especially women.
- **International campaign-** To galvanise international support, a delegation of women leaders, led by Rajkumari Amrit Kaur, a princess and a social activist, and Shareefa Hamid Ali, a lawyer and a feminist, travelled to London, and then Geneva, to petition the League of Nations, the precursor of the United Nations, for women's rights in India.
- They also met with other women's organisations and leaders, such as the International Alliance of Women and the International Women's Suffrage Alliance, to seek their solidarity and assistance.
- **Government of India Act 1935-** It expanded the right to vote and paved the way for women in public offices.
- Several women contested the 1936-37 elections and joined provincial governments. Women leaders created widespread acceptance for the idea of a universal adult franchise.
- **Indian Women's Charter of Rights and Duties-** It was adopted by All India Women's Conference in 1945-46 which demanded equality in all spheres. It made a case for women's economic empowerment and highlighted the need to formally recognise the value of domestic work.
- **Limited special privileges-** A key issue after independence was reservation of seats on religious grounds due to the experience of partition of India.

Sarojini Naidu is the first Indian woman to preside over the Congress session in 1925 at Calcutta.

Women's India Association

- **Established-** 1917
- **Location-** Adyar, Madras
- **Founders-** Annie Besant, Margaret Cousins and others.
- It is **India's first organization** which was working pan India united to serve the issues of women from all caste classes and religions.
- **Stri Dharma-** It is monthly journal which became a safe space for women to inspire other women, it also talked to young minds about the future of India and inspired them to become future rulers.

All India Women's Conference

- **Established-** 1927
- **Focus areas-** Women's education, outlawing child marriage, raising the age of consent, and banning polygamy.
- **Advocacy for women rights-** Indian Women's Charter of Rights and Duties advocated wholesale reforms to the personal codes, demanding the freedom to divorce, and equal property and inheritance rights.
- **Hindu code bill-** The charter found their way in the bill which gave Hindu women equal rights in marriage, divorce, inheritance, and adoption.

- Rajkumari Amrit Kaur and Begum Qudsia Aizaz Rasul made appeals in the Constituent Assembly to do away with any special privileges. Therefore reservation was limited to the Scheduled Castes and Tribes
- **Separate electorate-** AIWC has been against separate electorate and believed that reservation deepened communal divisions — they even argued against women's reservation. These issues caused a rift within the AIWC reflecting the diverse worldviews within the women's movement.
- **Constitution of India-** It was envisioned as a living document allowing future governments to mould the republic as per the contingencies of the time.
- In the last 70 years, feminists have strived to advance the rights of women leading to the enactment of various laws, policies, and Constitutional amendments.

3. GEOGRAPHY

3.1 Humboldt's Enigma

Why in news?

Explorers and naturalists have been curious why some areas are more biodiverse than others.

What is Humboldt's enigma?

- It is a term used to describe the puzzle of ***why some mountain regions, especially in the tropics, have exceptionally high biodiversity***, contrary to the expected decrease in diversity away from the equator.
- It is named after **Alexander von Humboldt**, a 19th-century naturalist who explored the relationship between climate, geography, and species distribution.
- Humboldt's enigma challenges the conventional wisdom that the most biodiverse areas are the lowland tropical forests.
 - **Tropical diversity-** They have more energy, resources and ecological niches leading to higher biodiversity.
 - The diversity decreases away from the tropics, but mountains have been an important exception which is the essence of Humboldt's enigma
 - **Mountain diversity-** Mountains play a key role in generating and maintaining diversity.
 - The factors that drive biodiversity on mountains such as climate, geology and evolutionary processes.

What drives the biodiversity in mountain?

- Mountains can act as cradle or museum of species, depending on their history and stability.
- **Geological process-** Uplifts result in new habitats where new species arise, so the habitats are cradles.
 - **Northern Andes** in South America have diverse biomes and habitats supported by rich variety of species across elevation.

Steps taken to study biodiversity in India

National Mission on Himalayan Studies

- **Launch year-** 2015-16
- **Aim-** To provide much needed focus on the conservation and sustainable management of natural resources in the Indian Himalayan Region (IHR).
- **Goal-** To improve quality of life and maintain ecosystem health of the region to ensure long- term ecological security to the country.

National Mission for Sustaining the Himalayan Ecosystem

- **Launch year-** 2010
- It is one of the 8 missions outlined in the National Climate Change Action Plan (NAPCC) of India.
- **Aim-** To facilitate the development of long term policy measures for sustaining and safeguarding the Himalayan ecosystem, including Himalayan glaciers.

National Mission on Biodiversity and Human Wellbeing

- **Launch year-** 2018
- **Approval-** By Prime Minister's Science, Technology and Innovation Advisory council (PM-STIAC)
- **Aim-** To bring biodiversity and conservation to the forefront of Indian science, policy, and society's attention.

- **Climatic conditions**- Species on some climatologically stable mountains persist there for long time, so these spots are museums that accumulate many such species over time.
 - **Shola Sky Island in India**- Sholicola and the Montecincla ancient bird species have survived in isolated peaks of Western Ghats
- **Geological heterogeneity**- A key factor in biodiversity formation as different types of rocks and soils influence plant diversity and adaptation.
- Mountains with more geological diversity tend to have more biodiversity.
 - **Eastern Himalayas** have groups of birds which evolved elsewhere and dispersed to the Himalaya, resulting in higher diversity there.

What lies ahead?

- There is a need for more fine scale data on species distribution and evolution especially in under studies regions like the Eastern Ghats India to know about the rich biodiversity.
- National programmes such as National Mission on Himalayan Studies, the National Mission for Sustaining the Himalayan Ecosystem, and the National Mission on Biodiversity and Human Wellbeing should be strengthened, bolstered by the will to support basic research on diversity.

3.2 No Snow January in Himachal Pradesh

Why in news?

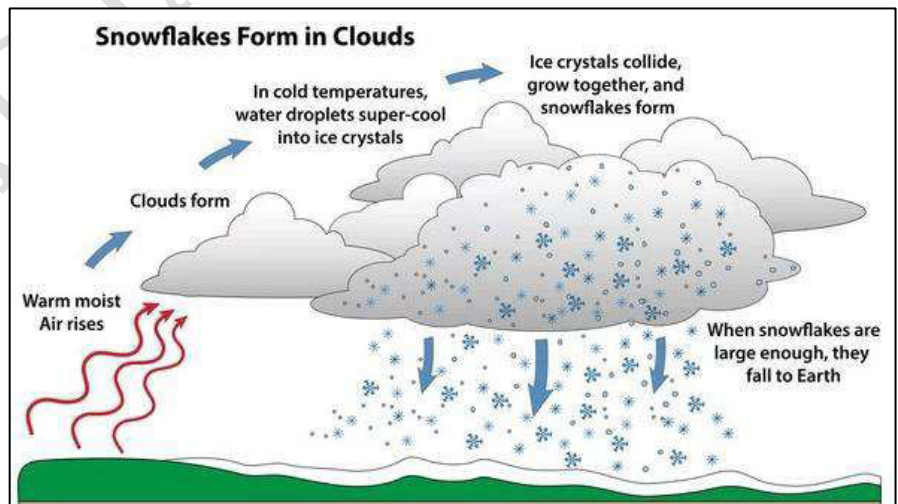
Records from the India Meteorological Department (IMD) suggest Himachal Pradesh has registered its driest January since 1901, with a 99.7% shortfall in January rain compared to what is normal.

What is snow?

- **Snow** - Snow is precipitation that falls in the form of ice crystals.
- The ice crystals are formed individually in clouds, but when they fall, they stick together in clusters of snowflakes.
- Snowflakes develop different patterns, depending on the **temperature and humidity of the air**.

Precipitation is any type of water that forms in the Earth's atmosphere and then drops onto the surface of the Earth.

- Snow requires temperatures at the ground to be near or below freezing—**less than 0 degrees C (32-degrees Fahrenheit)**.
- **Formation of snow** - Water vapor, droplets of water suspended in the air, builds up in the Earth's atmosphere.
- Water vapor collects with other materials, such as dust, in clouds.
- Precipitation condenses, or forms, around these tiny pieces of material, called **cloud condensation nuclei (CCN)**.



- Clouds eventually get too full of water vapor, and the precipitation turns into a liquid (rain) or a solid (snow).

What is the reason for the lack of snowfall?

- **Fall in the number of Western Disturbances** - **Western Disturbances (WDs)** are storms that originate in the **mid-latitude regions** and travel thousands of kilometres to bring rains across northern India.
- This is a non-monsoonal precipitation pattern driven by the **Westerlies**.
- When the temperatures are low, they result in snowfall and water being available as snow melt.
- Usually, 5 to 7 WDs affect Northwest India in the period from December to January, but this winter, there have been none. As a result, the Western Himalayan Region received 80% less rain than normal.

- **El Niño conditions over the equatorial Pacific Ocean** - **El Niño** is the warming of sea waters in Central-east Equatorial Pacific that occurs every few years (**Warm phase off the coast of Peru**).
- During El Niño, surface temperatures in the equatorial Pacific rise and this weakens the trade winds that blow near the Equator.
- In India, an El Niño event is strongly linked to suppressed rainfall.
- **Absence of a strong jet stream** - Jet streams are relatively narrow bands of strong wind (250 to 320 km/hr) in the *upper levels of the atmosphere* (about 12 km above mean sea level).
- Within jet streams, the winds blow from west to east, but the band often shifts north and south because jet streams follow the boundaries between hot and cold air.
- The **western cyclonic disturbances** which enter the Indian subcontinent from the west and the northwest during the winter months, originate over the Mediterranean Sea and are brought into India by the **westerly jet stream**.
- The arrival of these disturbances is often indicated by a rise in the night temperature.

Phenomenon	Effect on India
Western Disturbances	Gives rain
El Niño	Suppress the rain
Strong jet stream	Gives rain

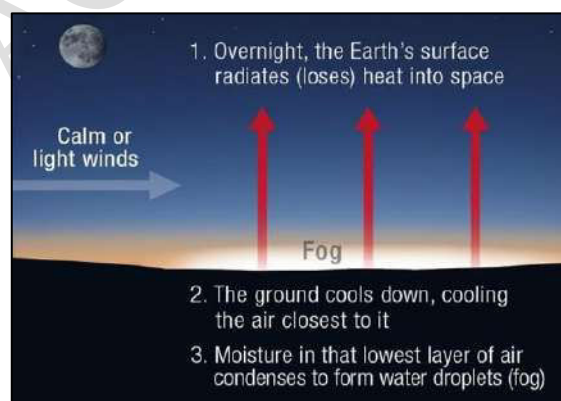
3.3 Dense Fog in North India

Why in News?

Dense fog covered the better part of north India during the last days of December and the 1st couple of days of 2024.

What is fog?

- It is a **collection of small droplets of water** produced when evaporated water has cooled down and condensed.
- It is nothing but a thick cloud, but very close to the earth's surface.
- **Conditions for a thick fog**
 - Lower temperatures
 - Abundant moisture near the surface
 - Higher humidity
 - The process by which it cools
- Fog materialises whenever there is a **temperature disparity between the ground and the air**.



	Fog	Mist
Meaning	A thick low-lying cloud at surface level and composed of tiny dew drops in the air.	A cloud formed out of small droplets held over in atmosphere at ground level due to temperature inversion of humidity variation.
Density	Very high	Relatively low
Visibility	Lower, upto 1 km	Relatively higher, more than 1 km
Longevity	Longer period	Shorter time

What are the different types of fog?

- **Radiation Fog** – It forms when all solar energy exits the earth and allows the temperature to meet up with the dew point and the best condition is when it had rained the previous night.
- **Precipitation Fog** – It forms when rain is falling through cold air which is common with a warm fronts but it can occur with cold fronts as well only if it's not moving too fast.
- Cold air, dry at the surface while rain is falling through it evaporates and causes the dew point to rise and this saturation forms fog.

RADIATION, OR GROUND, FOG

- 1 On clear nights with winds less than 5 mph, heat radiates away from the ground, cooling the ground and the air next to it.
- 2 Heavier, cold air flows into low places.
- 3 Fog forms as air cools to its dew point; fog is usually less than a couple of hundred feet deep.
- 4 As the sun comes up in the morning its heat raises the temperature above the dew point. The fog "burns off."
- 5 Strong winds prevent fog by mixing cold air near the ground with warmer air higher up.

VALLEY FOG

- 1 In valleys, especially in the West during the winter, radiation fog can become more than 1,500 feet thick.
- 2 Weak, winter sun isn't strong enough to evaporate the fog completely, but might warm the ground enough for a layer of fog up to around 500 feet above the ground to evaporate.
- 3 Such fogs can last for days, until a storm comes along with strong winds to push out the cold air.

ADVECTION FOG

- 1 Wind pushes warm, humid air inland in the winter — "advection" — refers to air moving horizontally.
- 2 As the air blows over cold ground it cools to the dew point and fog forms.
- 3 This kind of advection fog can cover wide areas of the central USA in the winter, closing airports.

UPSLOPE FOG

- 1 Wind blows humid air up hills or mountains.
- 2 As the air rises, it cools to its dew point, fog drifts up the hill. Widespread upslope fog is common on the great Plains, where the land slopes gently upward toward the Rockies.

SEA SMOKE, OR STEAM FOG

- 1 Cold air blows over much warmer water.
- 2 Water evaporates into the cold air, increasing it to the dew point.
- 3 Vapor condenses into tiny water droplets. On fall days you see "steam" rising from ponds and streams as fog forms a foot or two above the water.

PRECIPITATION FOG

- 1 Some of the rain falling into cool air evaporates if the rain is warmer than the air.
- 2 The added vapor increases the dew point to the air's temperature.
- 3 Vapor condenses into tiny fog droplets.

- **Advection Fog** – It forms from surface contact of horizontal winds and can occur with windy conditions.
- When cool moisture on the ground comes in contact with the warm, moist winds, it cause the air blowing in to become cool and then dew point rises and creates high humidity and forms fog.
- **Steam Fog** – It forms during the fall season on any lake due to the difference in rate of cooling and interactions between the upper cold air and relatively warmer lake.
- **Upslope Fog** – It forms adiabatically, as moist winds blow toward a mountain, it up glides and this causes the air to rise and cool.
- The cooling of the air from rising causes to meet up with the dew point temperature and so fog forms on top of the mountains.
- **Valley Fog** – It forms in the valley when the soil is moist from previous rainfall.
- As the skies clear solar energy exits earth and allow the temperature to cool near or at the dew point.
- **Freezing Fog** – It occurs when the temperature falls at 32°F (0°C) or below, it produces drizzle and these tiny droplets freeze when they come into contact with an object.
- **Ice Fog** – It is **only** seen in the polar and arctic regions.
- Temperatures at 14 F (-10°C) is too cold for the air to contain super-cooled water droplets so it forms small tiny ice crystals.

*Valley fog is so dense that sometimes it is called as **tule fog**.*

What is the situation of fogging in northern India?

- During Indian winters, the fog is created when the temperature drops at night and in the early morning, condenses on aerosols present in the atmosphere.
- **Vulnerable regions** – The **entire Indo-Gangetic plains**
- **Favourable conditions** – It is due to presence of
 - Low temperatures
 - Low wind speed
 - Moisture availability
 - Plenty of aerosols
- **Moisture incursion** – It can happen once a **Western Disturbance**, a precipitational pattern that brings rain to north India during winter months moves across northern parts.
- Sometimes, it can happen from the Arabian Sea also.
- **Effect of fogging** – Fog disrupting the lives of people in North India with the condition of poor visibility.
- It impacts air travel and land transportation. It also increases the pollution.
 - Recently, Delhi experienced an increase in pollution levels, with an [AQI rating of “severe.”](#)

4. SOCIAL ISSUES

4.1 High Child Marriages in West Bengal

Why in News?

A recent study published in the Lancet noted overall decrease in child marriage in India except 4 States.

What are the key findings of the Lancet report?

- **India – 1 in 5 girls** are still married below [legal marriage age](#).
- **Skewed achievements** – Some States have achieved dramatic decreases while other states like West Bengal have struggled.
- **Bihar (16.7%), West Bengal, Uttar Pradesh, and Maharashtra** accounted for more than half of the total headcount burden of child marriages in girls.

- **West Bengal** – It has the *largest absolute increase in headcount* representing an increase of 32.3% in headcount with over 5,00,000 more girls getting married as children.

What is situation of child marriage in West Bengal?

- **Statistics** – The [National Family Health Survey-5 \(NFHS-5\)](#) carried out in 2019-20, points out that the women aged 20-24 years who were married before the age of 18 years **remains one of the highest in the country at 41.6% same as NFHS- 4.**
- The all-India figure of women aged 20-24 years getting married before they turn 18 is pegged at 23.3%.
- **Policy interventions** – 2 schemes were introduced to curb child marriages situations in the state.
 - **Rupashree Prakalpa** – A **cash incentive scheme** for marriage of girls who are above legal marriage age in India.
 - **Kanyashree Prakalpa** - A **conditional cash transfer scheme** aimed at incentivising the schooling of all teenage girls between the ages of 13 and 18, and simultaneously discouraging child marriage.
- **Challenges** – Cash incentives and existing laws have failed to check child marriages in West Bengal.
- **Poverty** forces the family to continue with the custom of child marriage.
 - Murshidabad, economically poorer district of the State, has one of the highest numbers of child marriages.
- A significant population of the State go out to work (**migration**) in other States and they don't want to leave unmarried daughters at home.
- Despite high literacy, the incidence of child marriage is also disproportionately high in some districts.
 - For example, the Purba Medinipur district with over 88% literacy rate has the highest incidence of child marriage of more than 57.6% as per NFHS- 5.
- Certain families avail cash benefits of both the schemes to organise marriage of girls, sometimes *soon after cashing in on the school scheme.*
- Lower number of cases registered under [Prohibition of Child Marriages Act, 2006](#) due to the lack of awareness.
 - In 2021, West Bengal registered only 105 cases whereas States like Assam with smaller population and lesser instances of child marriage registered more cases in the past 5 years.

Kanyashree Prakalpa

- **Established in** – 2013
- **International recognition** – Received the United Nations Public Service Award 2017
- **Coverage** – 81 lakh girls as per the State budget for 2023-24
- **Impact** – The school enrolment of girls has increased in the State.
- In 2023, the Class XII board exam, saw a 14.84% increase in female candidates.

The Prohibition of Child Marriage (Amendment) Bill, 2021 introduced in Parliament in 2021 for raising the age of marriage of women to 21 years to bring it on par with the men has been referred to a Parliamentary Standing Committee.

What lies ahead?

- **Promote decentralised planning** – In 2022, the West Bengal government called for a district action plan to curb child marriage and issued necessary guidelines.
- **Enhance political will** – This will effectively enforce the existing laws to control the child marriages.
- **Develop social campaigns** – Involve all stakeholders including panchayats, schools and local communities to improve the situation as rapidly as in other States.

4.2 Upskilling Rural Youth of India

Why in News?

In a recent group discussion held by Life Skills Collaborative, most of the rural youth preferred to stay in their village which necessitates the importance of upskilling them.

Why is upskilling necessary for the rural youth?

- **To overcome agrarian crisis** – Farming is the main source of rural livelihoods including children who work on family-owned farms.

UN projects that almost 50% of the Indian population will be living in urban areas by 2047.

- But the rural economy is experiencing a major occupational shift with more farmers quitting agriculture to join non-farming jobs, hinting at an agrarian crisis.
- To reduce unemployment rate** – According to NSSO, the unemployment rate among rural male and female youth stood at 17.4% and 13.6% respectively in 2020.
- To control migration** – Many rural youth migrate to urban areas in search of meaningful employment which impacts livelihood of urban dwellers.

The National Sample Survey Office (NSSO) data recorded 34 million farmers leaving their farms and transitioning to other sectors such as construction during 2004-05 & 2011-12.

How can youth in rural India be made employment-ready?

- Rural education** – Technical as well as life skills are needed to empower youth in these areas through formal education.
- The success stories of **Mexico's tele-schools and Bhutan's well-being-infused curriculum** can be introduced.
- Vocational training** – It will imbibe relevant rural skills in them to ensure a secure living where they currently live.
- Placement opportunities** – Industrial Training Institutes need to provide avenues for placements to vocational skill aspirants.
- Alternate employment opportunities** – Rural India can boost employability in both traditional and non-traditional trades, leading to a vibrant economy by offering skills in fields like agricultural mechanisation, pollution monitoring, nursing and digital technologies via e-learning.
- Upskilling opportunities** – Indian government have launched '**Skills on Wheels**' initiative with NSDC and IndusInd Bank to promote skilling to students' doorsteps.
- Promoting life skills** – If learning is infused with rural life skills in schools, rural education will have the potential to nurture a generation capable of thriving.
 - Example, courses in both industry-specific skills (such as in healthcare, electrical, construction) and life skills by Pratham.
- NGO's participation** – Bharat Cares, a non-profit organisation in India is working towards empowering the underprivileged through skilling.

Skills on Wheels

- A customized bus will promote 'Skill India Mission'.
- Initiative by** – NSDC and IndusInd Bank in 2023
- Objectives** – To equip rural youth, particularly women with key Digital Skills and make them job and future-ready and to improve their livelihood.
- To bridge the gap between the skilled people required in the industry and the unemployed youth.
- Target** – 60,000 youth will be empowered over a period of 5 years.
- Activities** – It will travel across the length and breadth of aspirational and backward districts and spreads awareness at grass root level about free skill training programs.

G.S PAPER II

5. INDIAN POLITY

5.1 Key Supreme Court Judgments in 2023

Why in news?

The Supreme Court has delivered several landmark judgments in 2023.

S.No	Name of the Case	Judgement
1	Vivek Narayan Sharma v. Union of India	Upheld the decision taken by the Union Government to demonetise currency notes of Rs. 500 and Rs.1000 denominations and held that it satisfies the test of proportionality.

2	<i>Joseph Shine v Union of India</i>	Armed forces can take action against their officers for adulterous acts . <i>Joseph Shine v Union of India, 2018 that decriminalised adultery does not prevent court martial proceedings initiated against members of the armed forces for adulterous conduct.</i>
3	<i>Anoop Baranwal v. Union of India</i>	The Chief Election Commissioner (CEC) and Election Commissioners (ECs) will be appointed by the President on the advice of a committee comprising the Prime Minister, the Chief Justice of India (CJI) and the Leader of Opposition (LoP) in the Lok Sabha or the leader of the single largest party in opposition.
4	<i>Subhash Desai versus Principal Secretary, Governor of Maharashtra and Ors</i>	Opened the doors for disqualification proceedings against Maharashtra Chief Minister Eknath Shinde for defection from the Shiv Sena party, and held that the then-Governor Bhagat Singh Koshyari “erred” in calling for a trust vote which triggered the fall of the Uddhav Thackeray-led government in mid-2022.
5	<i>Animal Welfare Board v. Union Of India</i>	Upheld the Prevention of Cruelty to Animals (Tamil Nadu Amendment) Act of 2017 and Prevention of Cruelty to Animals (Conduct of Jallikattu) Rules of 2017, saying that the traditional bull-taming sport ‘ Jallikattu ’ has been going on in Tamil Nadu for the last century.
6	<i>Revanasiddappa v. Mallikarjun</i>	A child born of a void or voidable marriage can inherit the parent’s share in a joint Hindu family property governed by the Mitakshara law. However, such a child would not be entitled to rights in or to the property of any other person in the family.
7	<i>X v. Union of India</i>	Declined a married woman’s plea to medically terminate her 26-week pregnancy , and it opposed to order doctors to stop the heartbeat of the foetus when medical reports say she will give birth to a viable baby.
8	<i>Supriyo v. Union of India</i>	Non-heterosexual couples cannot claim an unqualified right to marry .
9	<i>Temple of Healing v. Union of India</i>	Issued directions to expedite adoption processes and directed States to conduct drives to identify adoptable children and establish adoption agencies.
10	<i>Re Article 370 of the Constitution of India</i>	Unanimously upheld the power of the President to abrogate Article 370 via an executive order in August 2019, leading to the reorganisation of the State of Jammu and Kashmir into 2 Union Territories and denuding its special privileges under the Constitution.
11	<i>Ritu Chhabaria v. Union of India</i>	Central agencies cannot deny accused persons their right to default bail by filing multiple supplementary chargesheets and seeking renewed custody. Later, the Supreme Court, in a rather unusual order, directed lower courts to decide pending default bail applications without relying on its own judgment. <i>Article 141 of the Constitution provides that the law declared by the Supreme Court shall be binding on all courts within India.</i>
12	<i>Shilpa Sailesh v. Varun Sreenivasan</i>	The Supreme Court can exercise its plenary power to do ‘ complete justice ’ under Article 142(1) of the Constitution to dissolve a marriage on the ground that it had broken down irretrievably.

5.2 Bilkis Bano Case

Why in news?

The Supreme Court quashed the order of remission granted by the State of Gujarat in 2022 to 11 men sentenced to life imprisonment for the gangrape of Bilkis Bano and murder of her family during the 2002 Gujarat riots.

What is the case about?

- Gujarat had turned violent after the Sabarmati train was burnt in **Godhra** on 27 February 2002 when 59 karsevaks were killed in the train.

- Fearing the outbreak of violence, then 5-month pregnant Bilkis Bano fled from her village with her three-and-a-half-year-old daughter and 15 other family members.
- They were attacked by about 20-30 people whereas Bilkis, her mother, and three other women were raped and brutally assaulted.
- Only Bilkis, a man, and a three-year-old survived the attack.
- Her case was taken up by the National Human Rights Commission (NHRC) and Supreme Court, which ordered an investigation by the [CBI](#).

What happened in the case?

- The accused in the case were arrested in 2004 and the trial was moved out of **Gujarat to Maharashtra** after Bilkis Bano received death threats.
- In 2008, the Special CBI Court sentenced 11 accused to **life imprisonment** on the charges of conspiring to rape a pregnant woman, murder and unlawful assembly under the Indian Penal Code.
- In 2017, the Bombay High Court dismissed the appeals of the convicts.
- In 2019, the Supreme Court upheld the High Court order and awarded compensation of Rs 50 lakh to Bilkis — the first such order in a case related to the 2002 riots.

How were the convicts remitted?

- Gujarat High Court** - One of the convicts had approached the Gujarat High Court seeking remission of the sentence under **Sections 432 and 433 of the Code of Criminal Procedure**.
- The court dismissed his plea while observing that the “**appropriate government**” to take a decision about his remission is **Maharashtra**, and not Gujarat.

Remission means a reduction in sentence imposed on a person convicted of a crime.

- Supreme Court** - He then filed a plea in the Supreme Court, pleading that he had been in jail for *over 15 years without remission* as of 1 April 2022.
- The apex court directed the **Gujarat government** to look into the issue of remission of his sentence.
- It also directed the Gujarat government to rely on the **1992 remission policy** that was in effect at the time of their conviction in 2008 and not the policy adopted in 2014 which is effective today.
- The Bilkis Bano case was probed by the CBI, constituted under the Delhi Police Establishment Act and the convicts were sentenced on murder and gang rape charges.

Section 432(1) of CrPC	<ul style="list-style-type: none"> When any person has been sentenced to punishment for an offence, the appropriate government may, at any time, accept, suspend the execution of his sentence or remit the whole or any part of the punishment to which he has been sentenced.
Section 433A of CrPC	<ul style="list-style-type: none"> If life imprisonment is imposed on conviction of a person for an offence for which death is one of the punishments provided by law, or where a death sentence imposed on a person has been commuted under Section 433 into life imprisonment, such person shall not be released from prison unless he had served at least 14 years of imprisonment.
Section 435 of CrPC	<ul style="list-style-type: none"> The State government has to act after consultation with the Central government in cases investigated by agencies functioning under a Central Act.

Laws available on remission

- Articles 72 and 161 of the Constitution** - The President and Governors have the power to pardon, suspend, remit or commute a sentence passed by the courts (*Clemency power*).
- Code of Criminal Procedure (CrPC)** - Since **Prisons is a State subject**, State governments have powers under **Section 432 of the CrPC** to remit sentences by setting up a Sentence Review Board.

1992 Remission Policy	<ul style="list-style-type: none"> Did not distinctly categorise convicts eligible or not eligible for early release from prison
2014 Remission Policy	<ul style="list-style-type: none"> Persons not eligible for remission <ul style="list-style-type: none"> Prisoners investigated by the Delhi Special Police Establishment constituted under the Delhi Police Establishment Act, 1946 Prisoner convicted for murder with rape or gang rape

- In '**Laxman Naskar v. Union of India**' (2000) the SC laid down 5 grounds on which remission is considered.
 - Whether the offence is an individual act of crime that does not affect the society
 - Whether there is a chance of the crime being repeated in future
 - Whether the convict has lost the potentiality to commit crime
 - Whether any purpose is being served in keeping the convict in prison
 - Socio-economic conditions of the convict's family
- **Jail manuals** contain rules that allow certain days of remission in every month for good behaviour of convicts.

What is the current Supreme Court judgement about?

- The Supreme Court said **Gujarat was not the "appropriate government"** and asked the Maharashtra government to consider the remission plea of the convicted men.
 - It pointed out that Section 432(7)(b) of CrPC clearly indicates that the **State within which the offender is sentenced** is the appropriate government to pass remission orders and not the one where the crime took place or where the convict was imprisoned.
- It also said that the Gujarat government's decision to grant remission to convicts was an instance of usurpation of jurisdiction and abuse of discretion.
- The court cautioned States from exercising the power of remission in an arbitrary fashion.
- It also directed the released convicts to report back to the jail authorities within 2 weeks.

What does this mean?

- Through its ruling, the Supreme Court has allowed many to reaffirm their *faith in the law of the land and the rule of law*.
- It is a timely reiteration of the core principles that animate exercise of the power to grant remission — that it should be fair and reasonable and based on relevant parameters such as whether the crime involved affected society at large, whether the convict retained the potential for committing similar offences or is capable of reform.

5.3 Kerala HC Ruling on ITP Act of 1956

Why in News?

Recently the Kerala High Court ruled that a customer in a brothel can be charged under the Immoral Traffic (Prevention) Act, 1956.

What is the Immoral Traffic (Prevention) Act, 1956?

- **Human trafficking** – Forced or illegal transfer of people for the purpose of labour or other illegal activities.
- **Passed in** – 1956, as All India Suppression of Immoral Traffic Act (**SITA**) in pursuance of the *International Convention signed by India in 1950*, for the prevention of immoral traffic.
- **Objective** – To prevent the commercialisation of vices and the trafficking of females.
- **Amendment Act of 1986** – It has amended the title to 'Immoral Traffic (Prevention) Act' and replaced the words '*Women and Girls*' with the word '*Persons*'.
- It now **prohibits traffic in human beings** and not traffic in women and girls alone and a framework to inhibit or abolish commercialized traffic in persons.
- It provides for **rehabilitating** those rescued from the vice.
- **Definition** – Section 2 of the act defines both 'brothel' and 'prostitution'.
- **Brothel** – It includes *any house, room, or place*, or any portion of any house, room or place, which is used for purposes [of sexual exploitation or abuse] for the gain of another person or for the mutual gain of two or more prostitutes.
- **Prostitution** – It is defined as the sexual exploitation, or abuse of persons, *for commercial purposes*.

Under Article 23 (1) of Indian constitution, trafficking in human beings or persons is prohibited in India.

- **Special police officer** – There shall be for each area to be specified appointed by or on behalf of state government who shall not be below the rank of an Inspector of Police.
- **Protective home** – An institution where people in need of care and protection are kept.
- **Corrective institution** – An institution where a person in need of correction or reformation may be detained but no victim can be sent to a corrective institution against her wishes if she is an adult.
- **Punishment** – It penalises acts such as
 - Keeping a brothel
 - Soliciting in a public place
 - Living off the earnings of sex work
 - Living with or habitually being in the company of a sex worker
- **Section 5** of the act deals with punishments.
 - For procuring or attempting to procure a person, with or without their consent, for prostitution purposes.
 - For inducing persons to go from any place, for prostitution purposes, to become inmates of, or frequent, a brothel.
- **Imprisonment** – Inducing persons to engage in prostitution is punishable with rigorous imprisonment for 3–7 years, along with Rs 2,000 fine and if it is committed against their will, the maximum sentence can be extended to 14 years or life.

What is the current case?

- **Petitioner** – A customer in a brothel, was arrested and accused of offences under the ITP Act's different sections like
 - 3 – Keeping a brothel or allowing premises to be used as one.
 - 4 – Living on prostitution earnings
 - 5 – **Procuring**, inducing, or taking persons for prostitution
 - 7 – Punishing prostitution in or around public places
- **Petitioner's plea** – He shall not be implicated for any offence under the ITP Act.
 - Section 15(5) and 15(5A) mandate producing the offender before the magistrate, and their medical examination to determine age, sexually transmitted diseases (if any), and injuries caused due to sexual abuse.
- **District court ruling** – It rejected the plea of petitioner and directed that charges be framed against him.
- **Kerala HC ruling** – While the term “procure” isn't defined in the 1956 Act, the court construed the word to mean those getting or obtaining “domain over a person” for prostitution.
- It concluded that a **consumer also comes within the purview of Section 5** and held that a customer can be charged under it.
- However, the petitioner was discharged of offences under Sections 3, 4, and 7 by the High Court.
- **Significance of the ruling** – By adding that a customer will be held liable in addition to pimps/brothel-keepers who hire persons for prostitution.

Prosecution of customers	Against the prosecution of customers
<ul style="list-style-type: none"> • Mathew vs the State of Kerala, 2022– A customer caught in a brothel can be prosecuted under the ITP Act. • Section 7(1) of the Act – It penalises <ul style="list-style-type: none"> ○ The person who carries on prostitution ○ The person with whom such prostitution is carried on • The HC also said that the act of immoral traffic cannot be perpetrated or carried on without a customer. 	<ul style="list-style-type: none"> • The Andhra Pradesh and Karnataka HCs in Goenka Sajjan Kumar vs The State of AP (2014) and Sri Sanaulla vs State Of Karnataka (2017) ruled against prosecuting brothel customers under sections 3-7 of the ITP Act.

5.4 Free Legal Aid in India

Why in News?

Recently, Department of Justice has announced the nomination of Supreme Court judge Justice BR Gavai as the Chairman of the Supreme Court Legal Services Committee (SCLSC).

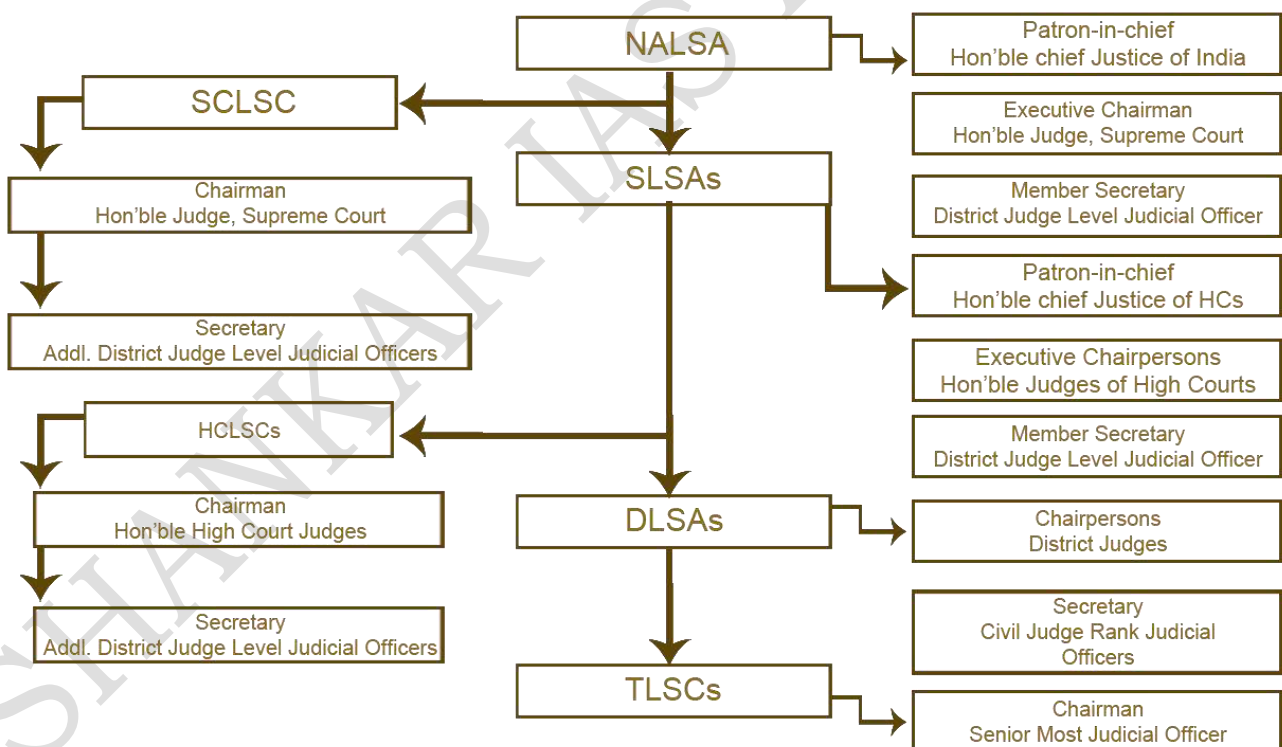
What is the need for legal services?

- Indian Constitution has provisions that specifies the need for providing legal services.
- Article 39A** – The State shall secure that the operation of the legal system promotes justice, on a basis of equal opportunity and shall provide free legal aid by suitable legislation or schemes, **to ensure that opportunities for securing justice are not denied** to any citizen by reason of economic or other disabilities.
- Article 14** – It entails right to equality and make it obligatory for the state **to ensure equality before law**.
- Article 22(1)** – It entails the rights to be informed of grounds for arrest which make it obligatory for the State **to ensure a legal system that promotes justice** based on equal opportunity.
- Committee for implementing legal aid schemes** – It was constituted in 1980, at the national level under the chairmanship of then SC judge PN Bhagwati to monitor legal aid activities throughout India.

What is Legal Services Authorities Act?

- Constituted in** – 1987
- Objectives** – To give a statutory base to legal aid programmes and to provide free and competent legal services to eligible groups.

ORGANOGRAM OF LEGAL SERVICES AUTHORITIES/COMMITTEES



- It envisages a nationwide network for providing legal aid and assistance
 - At National level – NALSA
 - At State level – SLSC
 - At District level – DLSA
 - At Taluk level – TLSC
 - At Supreme Court level – SCLSC
 - At High Court level – HCLSC

While the HC Chief Justice is the patron-in-chief of the SLSC, the CJI is the patron-in-chief of NALSA.

- **NALSA** – National Legal Services Authority was constituted in 1995 to monitor and evaluate the implementation of legal aid programmes and to lay down policies for making them available.
- It also disburses funds and grants to SLSA and NGOs for implementing legal aid schemes and programmes.
- **SLSA** – State Legal Services Authorities were established to implement NALSA's policies and directions, give free legal services to people and conduct Lok Adalats.
- It is headed by the **Chief Justice of the respective High Court** and includes the senior HC judge as its Executive Chairman.
- **DLSA** – District Legal Services Authorities are chaired by the **district judge** of the respective district.
- **Taluk (Sub-Divisional) Legal Services Committees** – They were established in most taluks and are headed by a **senior civil judge**.
- **Collective function** – To provide free and competent legal services to the eligible persons
 - To organize Lok Adalats for amicable settlement of disputes
 - To organize legal awareness camps in the rural areas
 - To supply and obtain certified order copies and other legal documents, among other functions

Free Legal Aid in India	
Free Legal Services <ul style="list-style-type: none"> • Payment of court fee, process fees and other charges incurred in connection with any legal proceedings. • Providing service of lawyers in legal proceedings. • Obtaining and supply of certified copies of orders and other documents in legal proceedings. • Preparation of appeal, paper book including printing and translation of documents in legal proceedings. 	Eligibility for getting free legal services <ul style="list-style-type: none"> • Women and children • Members of SC/ST • Industrial workmen • Victims of mass disaster, violence, flood, drought, earthquake, industrial disaster. • Disabled persons • Persons in custody • Persons whose <u>annual income does not exceed Rs. 1 lakh</u> (in the SCSC, the limit is Rs. 5, 00,000/-). • Victims of Trafficking in Human beings or beggar

What is the Supreme Court Legal Services Committee (SCLSC)?

- **Constitution** – Under section 3A of the 1987 Act which states that the Central Authority (NALSA) shall constitute the committee.
- **Objective** – To provide free and competent legal services to the weaker sections of society, in cases falling under the top court's jurisdiction.
- **Composition** – It consists of a **sitting SC judge**, who is the chairman, along with other members possessing the experience and qualifications prescribed by the Centre.
- As of date, it consists of **chairperson and 9 members**.
- **Selection criteria** – Under 1987 Act, the Centre is empowered to make rules in consultation with the CJI, by notification.
- Rule 10 of the NALSA Rules, 1995, entails the numbers, experience, and qualifications of the SCLSC members.
- **Appointment** – **CJI nominates** both the chairman and other members of SCLSC and appoints the Secretary to the Committee.
- The Committee can appoint officers and other employees as prescribed by the Centre, in consultation with the CJI.

Other Initiatives for Free Legal Aid in India

- **Nyaya Bandhu (Pro Bono Legal Service)** – An initiative of the Department of Justice, launched in 2017 to enhance access to justice for marginalised sections of the society.
- **Tele-Law Services** – It is to facilitate delivery of legal advice through a panel of lawyers stationed at the front office of Legal Services Authorities and CSC.
- **Tele-Law 2.0** – It entails the fusion of Tele-Law Services with Nyaya Bandhu pro bono legal services, a merger to further enhance citizen accessibility to legal aid.

5.5 Civil Society under Siege

Why in news?

The anti-communal and progressive civic space is under the most serious attack by various restrictions in India.

What are the issues faced by Civil Society Organisations (CSOs)?

- A free civic space is the space where CSOs can operate without undue interference from the state or other actors.
- India is a diverse and vibrant civil society but the constitutional freedom is under siege which provides citizens to participate in public affairs, express their views, and hold the government accountable.
- As per study, the organisations that were actively fighting against communalism were mostly under attack by various legal and financial instruments.

Communalism is the ideology that divides people along religious lines and promotes hatred and violence between different communities.

Category based on intensity of attack	Restrictions
High	Loss of funds, imprisonment and other charges
Moderate	Centre for Policy Research a prominent think tank is also targeted by the state.
Low	They are attacked by Foreign Contribution (Regulation) Act, 2010, Central Bureau of Investigation (CBI) and Income Tax department.

What are the instruments used by the State against CSO?

- **Prevention of Money Laundering Act-** It expanded the scope of proceeds of crime that enabled the Department of Revenue and Enforcement Directorate to target NGOs and opposition politicians with charges of money laundering.
- **Foreign Contribution (Regulation) Act (FCRA)-** It was made stringent and the right of NGOs to access foreign funds was taken away from them.
- **Power to CBI-** FCRA enabled the CBI to investigate and prosecute NGOs and their personnel.
- **Income Tax Act-** It was amended in 2020 to make renewals of certificates and disclosure of donor data mandatory every 5 years.
- It also brought the domestic funding of anti-communal NGOs under siege.
- **Prior reference category list-** It is a list of 80 foreign donors who are monitored by the government for supporting human rights causes.

Prevention of Money Laundering Act (PMLA)

- **Aim-** To prevent money laundering and confiscation of property derived from or involved in money-laundering
- **Confiscation of property** - Deals with the confiscation of both movable and immovable property
- **Intermediaries** - The Act provides that every banking company, financial institution and intermediaries should maintain a record of transaction.
- **Appellate Tribunal** - It was established by Central Government to hear appeals against the dealers of adjudicating authority under this Act.
- **Special Courts** - The Central Government shall constitute Special Courts in consultation of the Chief Justice of India to try money laundering cases.
- **Location of an entity** - The third party of any entity in the country shall not be located in any country classified as 'high risk' by the Financial Action Task Force (FATF).
- **Power of authority-** Enforcement Directorate is the main agency probing allegations under PMLA.

Foreign Contribution Regulation Act (FCRA)

- It regulates foreign donations and ensures that such contributions do not adversely affect internal security.
- **Applicability-** To all associations, groups and NGOs which intend to receive foreign donations.
- **Registered associations-** It can receive foreign contribution for social, educational, religious, economic and cultural purposes.
- **Mandatory provision**
 - Filing of annual returns on the lines of Income Tax.
 - All NGOs must receive foreign funds in a designated bank account at SBI's New Delhi branch.
 - Aadhaar is mandatory for all the office-bearers, directors and other key functionaries of an NGO.
 - The Act capped the administrative expenses at 20% of the total foreign funds received - earlier, the upper limit was 50%.
 - It barred sub-granting by NGOs to smaller NGOs who work at the grass roots level.

5.6 Issue with Aligarh Muslim University (AMU)

Why in news?

Recently the Supreme Court was hearing a reference related to the minority status of Aligarh Muslim University.

How was Aligarh Muslim University established?

- **Established-** 1875 as Muhammadan Anglo-Oriental (MAO) College
- **Founder-** Sir Syed Ahmad Khan
- **Pre-independence** - Aligarh Muslim University (AMU) Act, 1920 was passed during colonial era which enabled MAO and a few other colleges to be affiliated with it.
- **Post-independence-** The Centre passed amendments to the law in 1951 and 1965 which changed the structure of the governing body of the university and gave powers to **President of India** to nominate its members.

AMU is ranked 9th across universities and autonomous institutions in India by the Ministry of Education's National Institutional Ranking Framework (NIRF) in 2023.

What is the issue with AMU?

- **S. Azeez Basha vs Union of India, 1967** ruled that the AMU was not a minority institution as there was a central legislation governing the same.
- The Centre through the **AMU (Amendment) Act, 1981** restored the minority status of the university, thereby permitting it to make reservations for the Muslim community in India.
- In 2006, the **Allahabad High Court**, however, struck down the provision of the 1981 law by which the university was accorded minority status.
- The case ultimately reached the **Supreme Court**, and the issue was referred to 7 judge bench in 2019.

What is the stand of the Centre and AMU?

- **Centre's stand** - The government said that the AMU was not and cannot be a university of any particular religion or religious denomination.
- It said a university declared as an institution of national importance cannot be a minority institution. Hence, if it is declared as a minority institution it will not be required to implement the reservation policy of the government.
- **AMU's stand** - The University had contended that it was established for educating and empowering the Muslim community.
- The essential thing that a minority community wants is the right to retain their identity and to be part of the national life and mainstream.
- The AMU contended that it was a minority institution and did not lose its character by complying with the uniform standards prescribed for varsities.

What is the Supreme Court ruling regarding AMU?

- It observed that the right given to religious and linguistic minorities to establish and administer their own educational institutions under **Article 30(1)** of the Constitution was **not to restrict** them.
- The minority character of an educational institution is **not lost** if its founders, who belong to a particular minority community, chose administrators from other communities to run the institution.
- Article 30 confers on the minority the discretion to choose the administrators of the institution.

Article 30 (1) says that all religious and linguistic minorities in India have the right to establish and manage their own educational institutions including schools, colleges and other educational facilities.

5.7 All about Tenth Schedule

Why in news?

Maharashtra Speaker's interpretation of the anti-defection law could be challenged in the Supreme Court.

What is the issue?

- Maharashtra Assembly Speaker has refused to disqualify 40 MLAs of the Eknath Shinde faction after recognising it as the real Shiv Sena and held the appointment of whip by this group as valid.
- He also did not disqualify 14 MLAs of the Uddhav Balasaheb Thackeray (UBT) group.
- The speaker said the Tenth Schedule of the Constitution could not be invoked to quell "intra-party dissent and indiscipline".

A whip is a member of the legislature party in a House who is appointed as such by the respective political party.

To know about the political crisis in Maharashtra click [here](#)

What are the provisions under 10th schedule?

- Anti-defection law**- It punishes individual MPs/MLAs for leaving one party for another.
- It was added by **52nd Constitutional Amendment Act** as the Tenth Schedule in 1985.
- It was a response to the toppling of multiple state governments by party-hopping MLAs after the general elections of 1967.
- Deciding authority**- **The Presiding Officer of the House** is empowered to make rules to give effect to the provisions of the 10th schedule.
- Role of judiciary**- The decision can be challenged before the higher judiciary.

Type	Defection
Member of political party	<ul style="list-style-type: none"> Voluntarily giving up the membership of political party (or) Voting or abstain from voting in that House contrary to the direction issued by the political party
Independent candidate	<ul style="list-style-type: none"> If an MP/MLA who has been elected as an independent candidate joins a political party later
Nominated member	<ul style="list-style-type: none"> If nominated legislators joins a political party after 6 months of being appointed to the House
Exemptions	
<ul style="list-style-type: none"> The law allows a group of two-third MP/MLAs to join (merger) another political party without inviting the penalty for defection. If a person is elected as the Speaker of Lok Sabha or the Chairman of Rajya Sabha, then he could resign from his party and re-join the party once he demits the post. 91st Amendment Act, 2005 deleted the exemption from disqualification in case of split by 1/3rd members of legislature party. 	

What are the issues in the Act?

- **Time limit**- The law **does not provide a time-frame** within which the presiding officer has to decide a defection case.
- **Favouritism**- The deciding authority is expected to perform this constitutional role in a neutral manner, but the past instances show that the Speakers have favoured the ruling dispensation.
- **No liability for political party**- It only punishes legislators for switching parties but political parties who are at the heart of the politics have no liability under the law.
- **Problem with merger**- The exception provision for merger is based on the number of members rather than the reason behind the defection.
- **Limited scope**- The law focuses on voluntary defection and remain silent about expulsion of member from the party.
- If expelled then such member would be an independent in the House with the option of joining another party.
- **Unable to curb instability**- The mass departures of rebel legislators have become political normal thus disrupting the governance.

What are the reforms needed?

- **Three test formula** - It was laid by the Supreme Court in 1971 for determining which faction is to be recognised as the original political party by the Election Commission.
 1. Aims and objects of the party
 2. Its affairs as per the party's constitution that reflect inner party democracy
 3. Majority in the legislative and organisation wings
- **External mechanism** - An independent tribunal is the need of the hour to prevent the Speaker from acting on partisan lines and acting in an undemocratic manner.
- **Internal democracy** - Regular inner-party elections in our political parties is needed with strict monitoring by the Election Commission.
- **Ethics committee** - Active involvement of Ethics committee as done in [Cash for Query case](#) can help in horse trading of legislators.
- **Deciding authority** - As per **2nd ARC recommendation**, the issue of disqualification of members on the ground of defection should be decided by the *President/ Governor* on the advice of *Election Commission*.
- **Narrowing the definition of defection**- Defining actions or conduct which constitutes defection that does not inhibit independent thinking and expression by legislators.

To know about reforming anti-defection laws, click [here](#)

5.8 Basic Structure Doctrine

Why in news?

Bangladesh, and others in the Commonwealth have imported Indian judicial intervention Basic Structure Doctrine which reflects advocacy, idealism and independence.

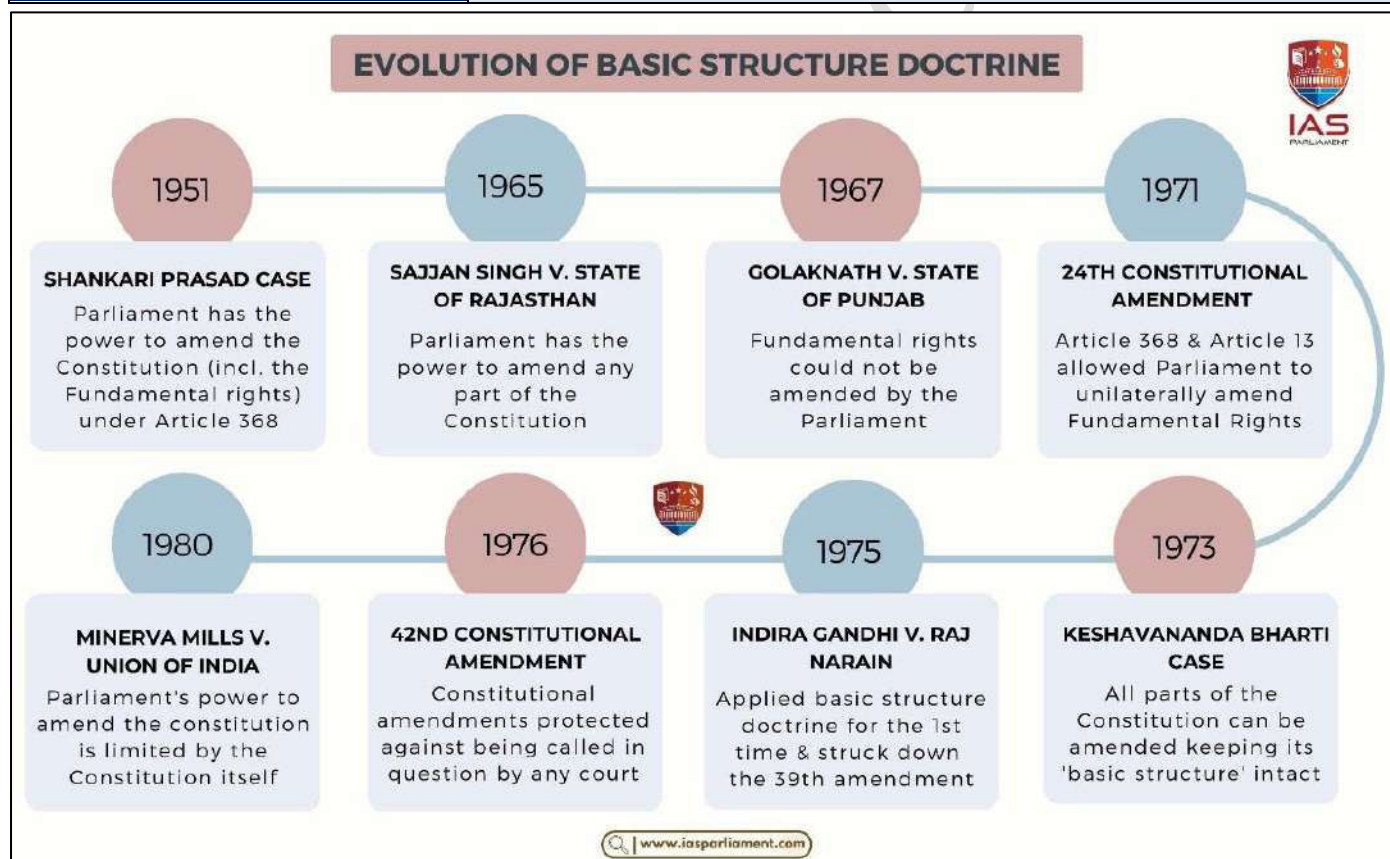
What is Basic Structure Doctrine?

- It is a constitutional principle that limits the power of Parliament to amend the Constitution and preserves its essential features.
- It is a form of judicial review that is used to test the legality of any legislation by the courts.
- It protects democracy from being distorted or destroyed by Parliament, and gives the courts the authority to decide what constitutes the Basic Structure Doctrine.
- Over the years, various facets of the basic structure doctrine have evolved, and are not openly defined by the judiciary

CONSTITUENTS OF THE BASIC STRUCTURE		
Federal & secular character of the Constitution	Democratic character of our policy	Liberty of thought, expression, belief, faith and worship
Welfare state and egalitarian society	Equality of status and opportunity	Separation of powers
Dignity of the individual	Unity and integrity of the nation	Sovereignty of India

What is the evolution of Basic Structure Doctrine?

Key judicial cases	Major verdict
Shankari Prasad Case (1951)	<ul style="list-style-type: none"> The Court upheld that under Article 368, the Parliament has the power to amend the Constitution including the Fundamental rights.
Sajjan Singh v. State of Rajasthan (1965)	<ul style="list-style-type: none"> The Court reiterated the Parliament's power to amend any part of the Constitution
I.C. Golak Nath v. State of Punjab (1967)	<ul style="list-style-type: none"> The Supreme Court held that Parliament could not curtail fundamental rights guaranteed under the Constitution.
Kesavananda Bharti Case (1973)	<ul style="list-style-type: none"> The Supreme Court held that although Parliament has the power to amend any part of the Constitution, it could not use this power to alter or destroy its "basic structure".
Indira Gandhi v. Raj Narain (1975)	<ul style="list-style-type: none"> The basic structure theory was applied for the first time and the independent conduct of elections was categorized as basic structure
Minerva Mills case (1980)	<ul style="list-style-type: none"> It pertained to the 42nd Amendment Act introduced by the Indira Gandhi government. In a majority verdict, the top court upheld the power of judicial review of constitutional amendments.



What is the significance of Basic Structure Doctrine?

- Living spirit** - The basic structure of the Constitution is its living spirit, holding up the body of its text.
- Soul of the Constitution** - It is the soul of the Constitution, inextricably linked to the values enshrined in the Preamble, without which the document and the ideas that make it sacred would collapse.
- Bedrock of constitutional interpretation** - Granville Austin's Working of a Democratic Constitution said that the basic structure doctrine

Article 368 in Part XX gives the Parliament the power to amend the Constitution and its procedure.

is fairly said to have become the bedrock of constitutional interpretation in India.

- **Secure the rule of law** - The courts have clarified that the basic structure aims to secure the rule of law essential for preservation of the democratic system.
- **Role of the judiciary**- It holds the judiciary as the final interpreter of our Constitution.
- **Ensures checks and balances**- It is applied to constitutional amendments to ensure the amendment does not dilute the fundamentals of the Constitutional itself.
- **Check on majoritarianism**- It checks the impulses of the Parliament since it places substantive limits on the power to amend the Constitution.
- **Safety valve**- Upendra Baxi said that the doctrine is useful to apply the brakes when the engine of amending power threatened to overrun Constitution.

5.9 International Court of Justice

Why in news?

South Africa has moved the International Court of Justice (ICJ), invoking the Genocide Convention, 1948, against [Israel](#), accusing it of committing genocide during its ongoing military campaign in Gaza.

What is ICJ?

- **World's court**- It is the **principal judicial organ** of [United Nations](#), it is the only principal organ of UN to be not located in New York.
- **Composition**-[ICJ](#) is composed of 15 judges elected to **9-year terms** of office by the UN General Assembly (UNGA) and the Security Council.
- **Election**- They are conducted **triennially**, and five among these 15 judges are elected every three years for a nine-year term to ensure a sense of continuity especially in pending cases.
- The President and Vice-President are elected by **secret ballot** to hold office for 3 years.
- **Jurisdiction**- There are **two types** of jurisdictions.
 - **Contentious jurisdiction** - Resolving legal disputes between consenting states
 - **Advisory jurisdiction** - The UNGA, the Security Council and other specialized bodies of the organization can request the ICJ for an opinion on a legal question
- **Role**-It hears cases related to war crimes, illegal state interference, ethnic cleansing, and other issues.
- It settles legal disputes between states and gives advisory opinions to the UN and its specialized agencies.
- **Legal disputes**-The Court settles legal disputes between nations only and not between individuals, organizations and private enterprises in accordance with international law.
- **State's consent**-The Court can **only hear a dispute when requested to do** so by one or more States, it cannot deal with a dispute of its own motion.
- **Verdict**- The judgment is **final**, binding on the parties and without an appeal, though the rulings of the ICJ are binding some countries ignored them, as ICJ has no direct means of enforcing its orders.
- **Wider scope**- It has rules on cases involving human rights and environmental violations.
- **Increased participation of states**- It has attracted more states to accept its jurisdiction by using dispute settlement clauses or special agreements.
- **Successful reparations**- Uganda paid 325 million dollars to the **DR of Congo** for its military intervention.
- **Advisory role**- The ICJ has provided legal opinions on various issues of global concern, such as nuclear weapons, the Israeli wall, and the occupation of Palestinian territories.

ICJ	
Founded in	1945
Headquarters	Hague, Netherlands
India's membership	India is a member

Judges	Countries
3	Africa
2	Latin America and the Caribbean
3	Asia
5	Western Europe and other states
2	Eastern Europe

Why South Africa approached ICJ?

- South Africa has sought the indication of provisional measures to stop the genocide by invoking Genocide Convention, 1948 to which both countries are signatories.
- It accused Israel of causing hunger, dehydration, and starvation in Gaza by impeding sufficient humanitarian assistance and failing to provide shelter to Palestinians in Gaza, including its 1.9 million internally displaced people.
- South Africa argues that urgent relief is necessary to protect against further, severe, and irreparable harm to the rights of the Palestinian people which continue to be violated, and to prevent any aggravation or extension of the dispute.
- It wants Israel to report on the measures taken to implement the court's order, and to refrain from acts and to immediately suspend all military operations in Gaza which might aggravate the dispute.
- Israel denied any genocidal intent and claimed its right to self-defence against Hamas which used civilians as human shields.
- It said its actions were lawful and not aimed at destroying the Palestinian people and accused South Africa for relying on statistics provided by Hamas about casualties.
- It argued that the unintended civilian casualties occurring during the pursuit of lawful military objectives do not indicate genocidal intent.

Convention on the Prevention and Punishment of the Crime of Genocide, 1948

- It is an instrument of international law that codified for the first time the crime of genocide in 1948.
- As of 2022, the convention has 152 state parties.
- The Convention calls on all States to maintain vigilance, and push for action to prevent genocide, everywhere.
- According to the convention, genocide means any of the following acts committed with intent to destroy a national, ethnical, racial or religious group, as such:
 - Killing members of the group
 - Causing serious bodily or mental harm to members of the group
 - Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part
 - Imposing measures intended to prevent births within the group
 - Forcibly transferring children of the group to another group.
- A genocide is a crime that can take place both in time of war as well as in time of peace.
- India ratified the convention in 1959.

What are the concerns about ICJ?

- **Non-compliance**- The court ruling is final, but the enforcement mechanism lies with the UNSC which will have the interference of permanent members.
- **Non-participation of powerful states**- Russia and the US have rejected the court's jurisdiction in cases involving Ukraine and Nicaragua respectively.
- **Lengthy procedure**- Gambia-Myanmar case over the treatment of Rohingya refugees is still in trial which started in 2019.
- **Bosnia-Serbia case** took 14 years which involved Genocide Convention, 1948. Hence ICJ's final ruling on South Africa's genocide case against Israel may take years to emerge.

What lies ahead?

- ICJ may issue provisional measure to stop the alleged genocide in Gaza, it cannot enforce its order and depends on UN Security Council for action.
- The US may veto any action against Israel if the ICJ rules against it.
- The need of the hour is decentralised judiciary which could foster judicial independence.

5.10 Sub Categorisation of Scheduled Castes

Why in news?

Recently a committee has been formed to evaluate and work out a method for equitable distribution of benefits to the most backward communities among Scheduled Castes (SCs) without breaking up the SC quota.

Why the committee is formed?

- **Need for Committee** - Madiga community in Telangana, constitutes at least 50% of the SC population in the State, but feels crowded out of benefits by the Mala community, another SC.
- SC communities in several States have said that they have been routinely crowded out of benefits meant for SCs by dominant and relatively forward communities in their category.
- **State level initiatives**- States such as **Punjab, Bihar and Tamil Nadu** have tried to enact laws to sub-categorise SCs and allocate different percent of reservation for them.
- **Central panel**- The Central Government has formed a high-level committee to explore alternative ways to address the grievances of the SC communities.

As per Census 2011, Scheduled Castes comprise around 15% of the total population.

What about the previous attempts of Sub categorisation?

- **Demand of Madiga community**- Union government had in 2005 considered legal options for sub-categorisation of SCs.
- Then Attorney General of India had said the Constitution can be amended to bring subcategorization within SCs, but there needs to be a mechanism to gather empirical evidence to prove the necessity of sub-categorisation.
- **Justice Ramachandra Raju Committee**- It was formed by Andhra Pradesh which recommended the sub-categorisation of SCs in the State based on the evidence that some communities were more backward and had less representation than others.
- **E.V.Chinnaiah vs State of Andhra Pradesh**- Supreme Court held that the State did not have the powers to unilaterally sub-categorise communities in the list of SCs or STs.
- The Constitution has provided that these lists can only be made by Parliament and notified by the President.
- **National Commission report**- It was formed to study the issue in Andhra Pradesh and recommended an amendment to **Article 341** of the Constitution.
- **Views of National Commissions for SCs and STs**- They opposed the constitutional amendment and argued that **Article 16(4)** of the Constitution has already allowed States to make special provision for any backward classes.
- **State of Punjab vs Davinder Singh**- The Supreme Court upheld the validity of Punjab's law to sub-classify SCs and give preference to Balmikis and Mazhabi Sikhs for reservation in services.
- The judgment has been referred to a larger bench of the Supreme Court, which will decide whether sub-classification of SCs and STs is constitutionally valid or not.

Article 341(1)

- The President (after consultation with the Governor of the State) specify the castes, races or tribes deemed to be Scheduled Castes

Article 341(2)

- Parliament may by law include in or exclude from the list of Scheduled Castes specified in a notification issued under clause (1)

Article 16(4)

- Nothing in this article shall prevent the State from making any provision for the reservation of appointments or posts in favour of any backward class of citizens which, in the opinion of the State, is not adequately represented in the services under the State.

What are the functions of the committee?

- **Subcategorise SCs**-The panel will discuss about breaking up the SC quota off the table and look into ways in which benefits of other government schemes and initiatives can be focused towards these SC communities.

- **Special initiatives** - It will design special initiatives for communities that need it and focus on existing programmes to ensure a more even distribution of benefits.
- **Deadline**- The committee doesn't have specific deadline and to present its findings at its earliest.
- **Specific considerations**- It will figure out on what basis SC communities are going to be shortlisted for special attention, find out extend to which special initiatives need to be design for each of them, and then find a way to deliver them.

What are the arguments in favour and against the sub-categorisation of SCs?

Arguments favouring sub-categorisation of SCs	Arguments against sub-categorisation of SCs
<ul style="list-style-type: none"> • Graded inequalities - The graded inequalities among SC communities is the reason for sub-categorisation for SCs. 	<ul style="list-style-type: none"> • Not address the root cause- National Commissions for SC and ST have noted that separate reservation within the categories would not really address the root cause of the problem.
<ul style="list-style-type: none"> • Backward communities- Even among the marginalised, there are communities that have lesser access to basic facilities. 	<ul style="list-style-type: none"> • Separate quota not a solution- NCST has noted that the most backward SCs are lagging so far behind forward SCs that a separate quota would not help, the need of the hour is representation at all levels.
<ul style="list-style-type: none"> • Inequality in reservation- The relatively forward communities within SC have managed to avail the benefits consistently while crowding the more backward ones out. 	<ul style="list-style-type: none"> • Disparity issue- Even if posts were reserved at higher levels, the most backward SCs would not have enough candidates to be considered for it in the first place.
<ul style="list-style-type: none"> • Sub-quota as solution- A separate reservation is required to the more backward communities within the reservation meant for SCs. 	<ul style="list-style-type: none"> • Accessing the schemes- Both NCSC and NCST said that the existing schemes and government benefits should first reach these sections before any sub-categorisation.

What lies ahead?

- Legal experts have pointed out the necessity to have concrete data to support sub-categorisation.
- The data can be made through the caste census of each community and sub-community and their respective socio-economic data.

To know about sub-categorisation of OBCs click [here](#)

5.11 Ladakh's Demand on Gilgit-Baltistan

Why in news?

The people of Ladakh, a Union Territory in India have raised a serious of demands including the territorial control of Ladakh up to Gilgit-Baltistan in Pakistan-occupied Kashmir.

Ladakh
<ul style="list-style-type: none"> • Ladakh is a region in the northernmost part of India, bordering China, Pakistan and Tibet. It was a part of the Kashmir division of the erstwhile State of Jammu and Kashmir. • Jammu and Kashmir Reorganisation Act, 2019- The Centre ended the special constitutional position of the region provided to it under Article 370. • Jammu and Kashmir bifurcated into <ul style="list-style-type: none"> ○ J&K, an UT with a Legislative Assembly ○ Ladakh, an UT without an Assembly • Hill councils- There are two hill councils namely <ul style="list-style-type: none"> ○ Ladakh Autonomous Hill Development Council-Kargil (LAHDC) and ○ LAHDC-Leh.

- **Power of hill council-** They have limited powers over local administration, such as health, education, tourism, agriculture and rural development.
- Ladakh is a Muslim-majority UT, with the Leh district dominated by Buddhists and Kargil by Shia Muslims.
- The region witnessed a divided reaction to the Centre's moves to abrogate Article 370 and 35A, provisions that granted exclusive rights to locals over land, jobs and natural resources.
- Leh for many decades, supported the demand for UT status. However, Kargil, after the events of 2019, has been insisting on reunification with Kashmir.



What are the latest demands of Ladakh?

- **Restore statehood-** They have been demanding that Ladakh be restored to a full-fledged state, with its own elected representatives and law-making powers.
- **Constitutional safeguards-** They have also been seeking safeguards to protect their unique culture, language and environment from the influx of outsiders and investors.
- **Special status-** Ladakh demanding special status under Sixth Schedule and [Article 371](#) of the Constitution of India which would grant autonomy and protection to certain tribal and backward regions in the country.

6th Schedule -Special provision for administration of tribal areas in Assam, Meghalaya, Tripura, Mizoram.

Article 371 deals with 12 states for better governance and political administrations.

- **Power to have autonomous councils-** The special status would allow the autonomous councils which can make laws on matter such as land, forest, agriculture, education, health and culture.
- **Representation-** Before the bifurcation of Jammu and Kashmir, Ladakh had four seats in the assembly and two seats in the legislative council, the upper house of the state which now has only one seat in the Lok Sabha and no seat in Rajya Sabha.
- **Protect environment-** Ladakh is one of the most ecologically fragile and sensitive areas in the world, and that opening it up to outsiders will have adverse effects on the environment and the biodiversity.
- **Ladakh Public Service Commission-** They demanded to create a separate commission for the recruitment of gazetted jobs, so that they have exclusive rights over recruitment.
- **Empower hill councils-** They should have the power to recruit lower rung staff for the region.
- **Domicile recruitment-** The Ladakh resident certificate should be the only basis for applying jobs the region.
- **Territorial expansion-** Ladakh wants the central government of India to assert its sovereignty over this area and integrate it with Ladakh

Why extension of territorial control?

- Prior to 1947, the Ladakh district also comprised the Gilgit-Baltistan area, which is now under the occupation of Pakistan.
- **Reservation-** It demanded reservation of seats for Gilgit-Baltistan once a legislature is granted to the region.
- **Security-** Ladakh also shares a long but volatile Line of Actual Control (LAC) with China which witnessed a violent face-off between two countries in 2020.
- **Empower locals-** The territorial extension will foster stability in the region which would enhance foreign policy, they know the harsh terrain of Ladakh and has helped in military and logistics operations.
- **G Kishan Reddy committee-** It was formed in 2022 to find an appropriate solution to the issues related to language, culture and conservation of land in Ladakh, but failed to arrive at a solution.
- **High power Ladakh committee-** It was headed by Nityanand Rai, to engage with the stakeholders of Ladakh. The committee recommended for more constructive dialogue between India and Ladakh over the list of demands.

Ladakh has a historical and strategic claim over the Gilgit-Baltistan area, which is currently under the control of Pakistan.

6. GOVERNMENT POLICIES AND INTERVENTIONS




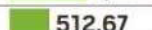
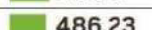
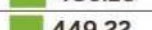
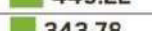
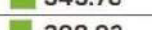
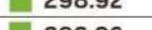
6.1 Pradhan Mantri Suryodaya Yojana

Why in news?

Recently, Prime Minister announced Pradhan Mantri Suryodaya Yojana under which 1 crore households will get rooftop solar power systems.

India's Status of Current Solar Capacity

- India currently stands at **4th place** globally in solar power capacity.
- As per Ministry of New and Renewable Energy (MNRE), solar power installed capacity in India has reached around 73.31 GW as of 2023.
- Solar power has the major share in the country's current renewable energy capacity, which stands at around 180 GW.
- In total solar capacity, **Rajasthan** is at top with 18.7GW followed by Gujarat.
- As of 2023, Rooftop solar installed capacity is around 11.08 GW.
- Gujarat** (2.8 GW) tops the rooftop solar capacity followed by Maharashtra.

As on 31.12.2023		in MW
States	Rooftop solar	
Gujarat		2,898.16
Maharashtra		1,716.3
Karnataka		1,562.11
Rajasthan		1,002.44
Kerala		512.67
Haryana		486.23
Tamil Nadu		449.22
Telangana		343.78
Punjab		298.92
MP		296.02

What is Pradhan Mantri Suryodaya Yojana?

- Aim-** To equip **1 crore** poor to middle-class households with rooftop solar panels in a bit to provide electricity from solar energy.

Significance of the Scheme

- Cost effective-** It will reduce the electricity bill for poor and middle class.
- In a solar rooftop system, there is only an upfront capital investment and minimal cost for maintenance.
- Aatmanirbar Bharat-** It will push India's goal of becoming self-reliant in the energy sector.
- Additional income-** It will provide income to generate surplus electricity generation.
- Massive national campaign-** It will mobilize residential segment consumers to adopt rooftop solar in large numbers.
- Reaching the targets-** It could help India achieve **net zero target by 2070**.
- India aims to reach **500 GW of renewable energy by 2030**, hence expanding solar energy is crucial to achieve this target.
- It seems to be a new attempt to help reach the target of **40 GW rooftop solar capacity**.
- Saves electricity cost** - It reduces the consumption of the grid-connected electricity and saves electricity cost for the consumer.

What is the Rooftop Solar Program?

- Launch year-** 2014
- About-** To promote the installation of solar panels on the roofs of residential, community, institutional, industrial and commercial buildings.
- Aim-** To achieve a cumulative capacity of **40 GW of rooftop solar by 2022**.
- Implementation-** Ministry of New and Renewable Energy in collaboration with the State Government and distribution companies (DISCOMs)
- Scheme extension-** 2022 to 2026
- Central financial assistance-** Given to eligible projects and DISCOMs that facilitate the installation and operation of rooftop solar systems.

As per the Council on Energy, Environment and Water (CEEW) report, the residential sector currently accounts for just 20% of the installations of rooftop solar capacity.

What steps were taken to promote solar energy?

- **Solar Park scheme**- Aims to facilitate the setting up of large-scale solar power projects in solar parks, which are zones of land with suitable infrastructure and access to the grid.
- **National Solar Mission**- One of the 8 key National Mission's which comprise India's National Action Plan on Climate Change (NAPCC).
- **Viability Gap Funding scheme (VGF)**- One-time grant implemented through Solar Energy Corporation of India (SECI), a public sector undertaking under the Ministry of New and Renewable Energy.
- **Central Public Sector Undertaking Scheme (CPSU)** - Aims to achieve 12 GW of solar power capacity from CPSUs by 2023.
- **Defence Scheme**- Aims to promote the installation of solar power plants by the defence sector and the para-military forces.
- **Canal bank and Canal top Scheme**- Aims to promote the installation of solar power plants on the banks and tops of the canals.
- **Bundling scheme**- Aims to promote the installation of solar power plants by bundling the solar power with the thermal power from the unallocated quota of the central generating stations (CGS).
- **PM KUSUM scheme**- Aimed at ensuring energy security for farmers in India, along with honouring India's commitment to increase the share of installed capacity of electric power from non-fossil-fuel sources to 40% by 2030 as part of Intended Nationally Determined Contributions (INDCs).
- **Production Linked Incentive (PLI)** - Scheme for high efficiency solar aims to enhance India's manufacturing capabilities and exports in the solar sector.
- **Green Energy Corridors**- Established to create intra-state transmission system for renewable energy projects.
- **International Solar Alliance**- A joint effort by **India and France** to mobilize efforts against climate change through deployment of solar energy solutions with an aim of **One Sun, One World, One Grid**.

At the end of 2023, the total solar installed capacity in the country had reached only 73.3 GW, of which grid-connected rooftop solar contributed just about 11 GW.

6.2 India's new hit-and-run law

Why in news?

Transporters and commercial drivers from States like Maharashtra, Chhattisgarh, West Bengal, and Punjab have staged protests against the recent legislation concerning hit-and-run incidents.

What is the new law?

Road Accidents in India in 2022

- India witnessed a year-on-year increase of 12% in road accidents and **9.4% in fatalities** in the same year while there is a 5% global decrease in road crash deaths.
- It registered the highest count of road crash fatalities, **exceeding 1.68 lakh deaths**.
- An average of 462 deaths daily and 19 deaths every hour which amounts to nearly **1 death every 3 and a half minutes**.
- Over 50% of all road fatalities occurred on national and State highways, which form less than 5% of the total road network.
- With only 1% of the world's vehicles, India accounts for **about 10% of crash-related deaths** and incurs an economic loss of **5-7% of its GDP** annually due to road crashes.

The National Crime Records Bureau (NCRB) recorded 47,806 hit and run incidents which resulted in the deaths of 50,815 people in 2022.

- **Principle underlying the law** – It wants to prevent drivers from engaging in rash and negligent driving that may lead to death.
- It creates a positive obligation on part of the offender to report such an incident to the police or magistrate

In the case of Rajesh Tyagi versus Jaibir Singh (2021), Delhi High Court had formulated that the offender fleeing from the spot as a significant factor for motor accidents claim.

- It enforces moral responsibility on the part of the offender towards the victim of a road accident.
- Such conversion of moral responsibility into a legal duty is not new to cases pertaining to motor vehicle accidents.
 - For instance, Section 134 of the Motor Vehicles Act, 1988, requires the driver to take all reasonable steps to secure medical attention for the injured person unless it is not practicable on account of mob fury.
- **Provision** – Section 106 (2) of the [Bharatiya Nyaya Sanhita, 2023](#).
- **Hit and Run** – It is an offence for fleeing an accident spot and failing to report the incident to a police officer or a magistrate.
- **Penalty** – It is up to 10 years in jail and Rs 7 lakh fine.
 - Section 106 (1) of the BNS applies to rash or negligent driving where if the driver reports the matter to the police, they shall incur a punishment of up to 5 years with a fine.

Section 304A of the Indian Penal Code, 1860 also covers provision on causing of death due to rash or negligent acts under.

What are the concerns with the new law?

- **Primary concern** – Severe punishment of imprisonment and a fine for the drivers.
- **Not aligned with the realities of road transport** – It fails to consider
 - Driver's challenging work conditions, including long driving hours and difficult roads.
 - The factors beyond the driver's control, such as poor visibility due to fog.
 - The scenario of mob violence against drivers in the event that they stop to assist the injured at accident sites.
- It may be abused by law enforcement agencies to their detriment.
- **Against the principles of equality** – An exception under 106 (1) of the BNS for doctors, where the punishment will be up to 2 years with a fine.
- **Other issues** – There is no actual mention in the BNS about the fine being Rs 7 lakh.
- Despite increase in the quantum of punishment, the offence has not been made non-bailable.
- **Mismatch with existing provision** – Section 161 of the Motor Vehicles (Amendment) Act, 2019, provides Rs 2 lakh compensation for victims of hit-and-run accidents and for grievous hurt it is Rs 50,000.
- Unlike Section 106 (2) of BNS, the compensation in this case is not recoverable from the drivers.

What lies ahead?

- **Moderate and grade the liabilities** - The liability of a wide variety of people working in different sectors needs to be moderated as done with doctors.
- It needs to provide a separate punishment for the acts of rash driving and negligent driving.
 - For road accidents resulting in minor injuries, measures like community service or revoking of driving licences or mandatory driving retests etc. could be imposed.
- **Consider contributory factors in negligent acts** – The behaviour of commuters, road conditions, lighting on the road, etc. must be considered.

6.3 Semiconductor Design-Linked Incentive (DLI) Scheme

Why in news?

India's semiconductor [Design-Linked Incentive \(DLI\)](#) scheme needs to be revised to boost the chip design sector

Status of Semiconductor Industry in India

- **Workforce** - India's semiconductor design engineers make up 20% of the global workforce.
- About 2,000 integrated circuits and chips are designed in India every year with engineers involved in varied aspects of design and verification.
- **Semiconductor market** - As per Deloitte report, India's semiconductor market is to reach \$55 billion by 2026 with more than 60% of the market being driven by 3 industries

- Smartphones and wearables
- Automotive components
- Computing and data storage
- Global players operating R&D in the country include Intel, Micron and Qualcomm among others.

What is Design Linked Incentive scheme?

- **Launched by-** Ministry of Electronics and Information Technology (MeitY).
- **Launch year-** 2021
- **Nodal agency-** Centre for Development of Advanced Computing (C-DAC), a scientific society operating under MeitY.
- **Aim-** To offer **financial incentives** as well as **design infrastructure support** across various stages of development and deployment of semiconductor designs.
- **Eligibility-** Financial incentives is provided for Integrated Circuits (ICs), Chipsets, System on Chips (SoCs), Systems & IP Cores and semiconductor linked designs.
- **Target-** To support 100 startups over **5 years**.
- **Components-** It is given for
 - Design Infrastructure support
 - Product Design Linked Incentive (P-DLI)
 - Deployment Linked Incentive (DLI)

Goals of India's Semiconductor Strategy

- **Reduce import bill-** Reduce dependence on semiconductor imports, particularly from China, and especially in strategic and emerging sectors.
- **Build supply chain resilience-** This can be done by integrating into the semiconductor global value chain (GVC).
- **Leverage India's comparative advantage-** India should double down its comparative advantage as it already hosts the design houses of every major global semiconductor industry player.

What are the issues with the scheme?

- **Limited goal-** The scheme has fallen short of its goal of supporting 100 start-ups in 5 years, as only 7 have been approved so far.
- **Lack of policy scrutiny-** The DLI scheme has not been reviewed or revised, unlike the Production Linked Incentive schemes for the other stages.
- **Restriction on foreign investment-** The scheme mandates that beneficiary start-ups maintain their domestic status for **at least 3 years** after receiving incentives, thus limiting the chance of getting long term funding.
- **High cost-** The chip design startups in India face high costs and low funding opportunities which discourage domestic investors.
- **Conflict of interest-** C-DAC's role as a competitor in the chip design market raises the issue of capacity and suitability to be the implementing and regulating agency.

Steps taken to promote semiconductor in India

- **Indian Semiconductor Mission-** An independent business division within Digital India Corporation having administrative and financial autonomy.
- **Scheme for setting up of Semiconductor and Display Fabs -** Provides fiscal support to eligible applicants for setting up of Semiconductor and Fabs which is aimed at attracting large investments.
- **SPECS scheme-** For promotion of manufacturing of electronic components and semiconductors and provides financial incentive of 25%.
- **Program for Development of Semiconductors and Display Manufacturing Ecosystem-** The modified programme offers fiscal support of 50% of project cost.
- **Semicon India Program-** Launched in 2021 to support the development of semiconductors and display manufacturing ecosystem in India.
- **Semicon India Conclave 2023-** India will emerge as global hub of semiconductor and chip-making industry.

What lies ahead?

- The DLI scheme should delink ownership from design development and adopt more start-up-friendly investment guidelines in order to boost their financial stability and provide them global exposure.
- A new implementing agency should be created under [India Semiconductor Mission](#), inspired by Karnataka's Semiconductor Fabless Accelerator Lab (SFAL).
- The scheme should be updated to support the design of various types of chips by any entity registered in India, regardless of its origin. This would align with the Union government's vision of having "[India designed chips](#)".
- A recalibrated policy focused on chip design can tolerate a certain failure rate and treat beneficiary start-ups as exploratory risk-taking vehicles to establish India's foothold in this high-tech sector.

6.4 Indian Stamp Bill 2023

Why in news?

The Centre has proposed repealing the Indian Stamp Act, 1899 and bringing in a new law for the stamp duty regime in the country.

India Stamp Act 1899

- It is a fiscal or money related statute that imposes a tax on documents that record transactions involving rights or liabilities.
- **Definition-** The law defines the terms instruments and stamps which are the main subjects of the law.
- **Instruments-** It includes every document by which any right or liability is or purports to be, created, transferred, limited, extended, extinguished or recorded.
- **Stamps-** It has been defined as "any mark, seal or endorsement by any agency or person duly authorised by the State Government, and includes an adhesive or impressed stamp, for the purposes of duty chargeable under this Act"
- **Rate of tax-** The law specifies the rate of tax for different types of instruments such as bills of exchange or promissory notes.
- **Amendment in 2020-** [Clearing Corporation of India Limited](#) has been appointed as collecting agent for foreign exchange, interest rate and credit derivative transactions which are reported to it.

What is a stamp duty?

- It is essentially a [government tax](#), which is levied to register documents, like an agreement or transaction paper between two or more parties, with the registrar.
- **Fixed duty-** The amount specified is fixed based on the document's nature.
- **Ad valorem duty-** It is charged at a certain percentage of the agreement value stated in the document.
- **Coverage-** Stamp duties can be levied on bills of exchange, cheques, promissory notes, bills of lading, letters of credit, policies of insurance, transfer of shares, debentures, proxies and receipts.
- **Article 268-** Stamp duties are levied by the Centre but appropriated by the concerned states within their territories.

Stamp duties are accepted as valid evidence in a court of law.

Why is the Indian Stamp Bill, 2023 being proposed?

- **Pre-constitution Act-** The Act was enacted during the British era, though amendments have been made over time, several provisions have become redundant or inoperative in the face of the current situation and evolving digital era.
- **Lack of clarity-** There are many complexities and ambiguities in the Act's language and its structure can be complex and convoluted, making it difficult for users to understand and comply with its requirements.
- **Time consuming-** Due to complexities in the Act it may lead to confusion, inconsistencies in interpretation, lead to inefficient procedures which is prone to errors and delays.

- **Tax evasion**- The loopholes can be exploited for tax evasion which can lead to revenue loss for the government and unfairness to compliant taxpayers which indirectly hinders economic activity.
- **Stagnant rates**- The stamp duty rates haven't been regularly reviewed or revised leading to distortions and inequities in the system.
- **Technology gaps**- The Act doesn't address the use of technology in financial transactions making it less relevant to the digital age.
- **Regional divide**- There are variations in the stamp duty rates and procedures across different States which would create market distortions and hinders inter-state commerce.

What are the key provisions of the Bill?

- **Aim**- To simplify procedures by simplifying the language, structure, and processes for stamp duty payment and administration.
- **Digital e-stamping**- "Electronic stamp" or "e-stamp" means an electronically generated impression denoting the payment of stamp duty through online means.
- **Digital signatures**- The words "executed" and "execution", used for instruments, will mean "signed" and "signature" and include attribution of electronic records and electronic signatures, as defined under the Information Technology (IT) Act, 2000.
- **Electronic records**- The IT Act defines "electronic records" as "data, record or data generated, image or sound stored, received or sent in an electronic form or micro film or computer-generated microfiche."
- **Authenticity**- Digital or electronic signature refers to the authentication of any electronic record by a subscriber through an electronic method or procedure.
- **Penalty**-It seeks to increase the maximum penalty amount from Rs 5,000 to Rs 25,000 for contravening any provisions of the law and impose Rs 1,000 per day for repeated offences.

7. GOVERNANCE

7.1 Performance of Indian Railways in 2023

Why in News?

The Performance of Indian Railways in 2023 showed significant strides in infrastructure but reveals underwhelming freight loading and financial performance.

How Indian Railways performed in 2023?

- **Near completion of DFC** – Dedicated Freight Corridors are nearing completion with *more than 200 freight trains* already running on the corridors.

Dedicated Freight Corridor (DFC)

- It is one of the largest rail projects to date in India.
- **Aim** – To provide a *seamless freight transportation between eastern, northern and western India*.
- **Executed by** – Indian Railways
- **Implemented by** – Dedicated Freight Corridor Corporation of India Limited (DFCCIL), a subsidiary of the Indian Railways.
- **Arms**
 - Eastern Dedicated Freight Corridor (EDFC)
 - Western Dedicated Freight Corridor (WDFC)
- **Route** - It passes along the *eastern and western arms of the Golden Quadrilateral*, the national highway network connecting Delhi, Kolkata, Mumbai and Chennai.

- **Udhampur-Srinagar-Baramulla Rail Link (USBRL)** – It is symbolic for *connectivity and seamless integration of J&K* with India.

- But its poor progress reflects on IR's credentials in executing and implementing large projects.
- **Delhi-Srinagar train** – The 1st train is expected to run sometime next summer.
- **High-Speed Rail project** – It was mooted in 2014 between Mumbai and Ahmedabad, intending to complete it by 2021.
- But the goal post kept shifting, however, due to non-cooperation between the Centre and Maharashtra governments and is expected to be operational by 2028-29.
- **Vande Bharat** – It was success with large-scale deployment from a mere 6 at the year start and with nearly 50 trains at the end.
- It showed that there is the space for fast and comfortable trains even with higher fare.
- But some of the trains were *deployed on political merit* and some run with *poor occupancy*.
 - Example: Bhopal-Jabalpur and Bhopal-Indore fail to cut travel time.
- The *sleeper version is badly-delayed*.
- **Railway tracks** – Delay in upgrading the tracks for higher speeds.
 - Work on raising the speed of Delhi-Howrah and Delhi-Mumbai sections to 160 kmph has seen tardy progress.
- **Safety Issues** – On safety front, Indian railways has shown improvement in the last 5 years with the *closure of all unmanned railway crossings* and improvements in track maintenance.
- However, the **Balasore accident** dented IR's safety record and was followed by at least 4 more accidents with fatalities and injuries.
 - Delhi-Kamakhya Express **derailment** near Buxar.
 - **Fire cases** in Patalkot Express near Agra and Delhi-Darbhanga Superfast Express near Etawah.
 - **Collision of two trains** near Vizianagaram.
- **Financial performance** – The rail freight and total revenue is *only between 3-4%, leaving no surplus* for investments, thus *increased reliance on the Centre* for the same.
 - In an economy growing nearly 7%, one would expect rail freight and total revenue to expand at a minimum of 10%.
- **Dismal roll-out of IRMS** – Indian Railway Management Service at the entry level is the *lowest choice among Civil Services* aspirants.
- Only 90 out of 150 vacancies could be filled up, as many candidates likely to qualify choose another service.
- **New Amrit Bharat Trains** – 2 Amrit Bharat Trains are to be launched.
- The Amrit Bharat train is a *Linke Hofmann Busch (LHB) push pull train* having locos at both ends for better acceleration.
- It provides improved facilities for rail passengers with a maximum speed limit of **130 kmph**.
- **Record Amrit Bharat Stations** - 1,309 Amrit Bharat Stations have been identified across the nation to modernize passenger amenities and improve accessibility & inclusivity of railway stations.
- **One Station, One Product (OSOP) Outlets** - It promotes 'Vocal for Local' vision, providing a market for indigenous products and creating additional income opportunities for marginalised sections of society.

Indian Railways has launched theme - based Tourist Circuit trains (Bharat Gaurav Trains) to showcase India's rich cultural heritage and magnificent historical places. 1st Bharat Gaurav Train (Shirdi Yatra) was launched in 2022.

Indian Railway has set a target of becoming Net Zero Carbon Emitter by 2030.

What should be focused in 2024?

- **Safety** – The shift should be strongly to improving safety of rail travel, including track and signalling upgrades.
- The progress of installation of **Kavach**, a unique safety system developed by IR engineers need to be paced up.
- **Address Issues** – While electrification of rails are promoted for greening railways it is silent on
 - The fate of more than 500 diesel locomotives

- The need for 'hydrogen trains' amidst electrification
- The requirement for airport-like stations
- **Prevent saturation** – The announcement to add 3,000 passenger trains to eliminate waiting lists should consider the saturated capacities into account.
- **Non-political deployment of trains** – Vande Bharat should be made after traffic surveys to reduce poor occupancy issues.
- **Future prospects** – IR should make efficient use of initiatives like [Gati Shakti](#) to improve its loading and revenue performance significantly.

PM Gati Shakti is a National Master Plan for Multimodal Connectivity launched in 2021 to transfer India into a hub of world class infrastructure by providing integrated and seamless connectivity for movement of people, goods and services.

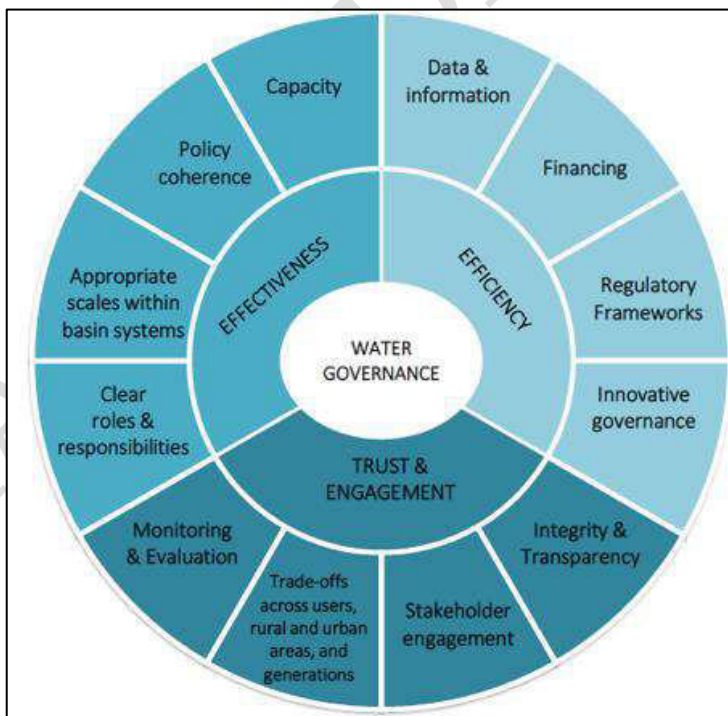
7.2 Water Governance in India

Why in News?

India aspires to become the 2nd largest economy by 2047 which will have an enormous impact on the use of water resources and thus highlights the need for effective water governance.

What is water governance?

- **Water governance** – The OECD define water governance as the set of rules, practices, and processes through which decisions for the management of water resources and services are taken and implemented, and decision-makers are held accountable.
- **Actors involved** – Central and local governments, regulators, NGOs, communities, and the private sector.
- **Need for water governance** – India is a **water stressed** country due to erratic rainfall and excess removal of groundwater
- The data (1990-2021) show that about 30% of the districts received less than normal South-west monsoon rainfall in 20 out of 32 years.
- Out of 766 districts, 256 districts are water stressed.
- By 2050, India is likely to experience water scarcity.
- There are bureaucratic hurdles like **Easement Act 1882**, is still followed which gives unlimited power of groundwater withdrawal to the owner of land.
- There is a lack of equity in water access.



At 1.4 billion, India accounts 17.5% of the world's population but has only 4% of the fresh water resources. The per capita annual fresh water availability has gone down from 5177 cu m (1951) to 1486 cu m (2019).

What is the significance of water governance?

- It ensures the sustainable and efficient use of water resources, address water-related challenges.
- It promotes equitable access to water services.
- It is also essential to address water-related challenges, such as water scarcity, water quality degradation, and climate change.

What are challenges in water governance?

- **Fragmented policies** – Owing to different jurisdiction and control of States, the interconnectedness of surface and groundwater systems resulted in fragmented policies.
- **Data gaps** – Data is scattered across multiple agencies, and inadequate for sound decision-making.
- **Looming Water Crisis** – A [NITI Aayog report](#) held that 21 major cities are expected to run out of groundwater as soon as 2020 which may affect nearly 100 million people.

- **Absence of River Boards** – While the River Boards Act was passed in 1956, no river board was ever created till this date.
- **Federal issue** – In India, **water is a State subject** except inter-State regulation of rivers which is under Central purview

Water – 7 th Schedule of Indian Constitution		
	Union List	State List
Shipping and Navigation	On inland, tidal and national waterways	On inland waterways
Carriage of goods & passengers	By sea or in national waterways	By inland waterways
Fishing & fisheries	Beyond territorial waters	Within state boundary
Regulation on	Training and education of mercantile marines by states and other agencies and develop interstate rivers and river valleys	Taxes on goods and passengers carried by road/ inland waterways

What is the agenda for action?

- To work for cooperative federalism in water governance.
- To revamp existing National Water Resource Council.
- To introduce an overarching institution for regulating the entire water sector at the State level.
 - At present, **only 5 states have water regulators in India.**
- To develop a model water regulatory framework for adoption by various States.
- To restructure the CWC (Central Water Commission) and CGWB (Central Ground Water Board).
- To adopt multidisciplinary expertise, bridging silos in water sector, and building multi-stakeholder partnership.

Top performers of G20 in Water Management

- **Water use efficiency** – Turkey, UK, Saudi Arabia and **India.**
- **River rejuvenation** – Australia, China, France, **India,** South Africa.
- **Climate resilient infrastructure** – UK and US.
- **Safe drinking water** – Germany, **India,** Mexico.
- **Water supply augmentation** – Saudi Arabia.
- **Efficient water governance** – Japan, Saudi Arabia.
- **Waste water management** – **India** and Saudi Arabia.
- **Watershed management** – Australia, Saudi Arabia.
- **Groundwater management** – China and Slovakia.

7.3 Annual Status of Education Report (ASER) 2023

Why in news?

The Annual Status of Education Report 2023 has been published recently by Pratham, a civil society organisation.

What is ASER?

- It is a nationwide citizen-led household survey that provides a snapshot of the status of **children's schooling and learning in rural India.**
- **Conducted by-** Pratham, a non-governmental organisation.
- **Launched-** 2005
- **Published-** It was conducted **annually** until 2014 and **switched to alternate year cycle** in 2016.

Category	Enrolment %
Overall enrolment	86.8%
Not enrolled for 14-year-old	14-year-old- 3.9%
	18-year-old- 32.6%

- **Basic ASER**- It collects information about enrolment in pre-school and school for children in the age group of 3 to 16, and assesses children aged 5 to 16 one-on-ones to understand their foundational reading and arithmetic abilities.
- **ASER, 2017**- For the first time it focused on the activities, abilities and aspirations of the youth aged **14 to 18** in 28 districts of the country.
- **ASER 2023**- It revisits 14-18 age group on collecting data and information about new domain that have emerged as important in the post pandemic world.
- **Theme**- Beyond Basics
- **Data collection**- The survey was conducted in 28 districts across 26 states in India.

What are the key highlights of the report?

- **Opted streams**- Most of the people in this age group were enrolled in the **Arts/Humanities streams**.
- Females are less likely to be enrolled in the Science, Technology, Engineering, and Mathematics (STEM) stream (28.1%) than males (36.3%).
- **Vocational training**- Only 5.6% of surveyed youth report taking vocational training or other related courses currently.
- **Basic reading**- About 25% still cannot read a Class II level text fluently in their regional language.
- **Math abilities**- More than half struggle with division (3 digit by 1 digit) problems.
- **English ability**- A little over half can read sentences in English (57.3%). Of those who can read sentences in English almost three quarters can tell their meaning.
- **Gender based performance**- Females can do better than males in reading a Class II level text in their regional language.
- Across all digital tasks, such as finding and sharing videos, searching the internet, setting an alarm, and using Google maps, boys outperformed girls.
- **Gender gap**- Males are more than twice as likely to have their own smartphone as females.
- **Mobile penetration**- Close to 90% of all youth have a smartphone in the household and know how to use it.
- About two-thirds of the youth reported using smartphones for educational purposes, such as watching online videos related to studies, solving doubts or exchanging notes.
- **Digital literacy divide**- Females are less likely to know how to use a smartphone or computer as compared to males.
- **Skill deficit**- The report revealed that there is a huge skill deficit among adolescents, many of them only a few years away from entering the job market.

7.4 Issues in Higher Education

Why in news?

As per Periodic Labour Force Survey (PLFS), the unemployment rate among graduates is higher than in many other developing countries as it may be out of touch with the skill requirement in India.

What are the issues with employment in India?

- **Intense lockdown**- Students who enrolled in college during the pandemic have now graduated and there are concerns over their employability and the **quality of online education**.
- **Learning loss**- The students faced challenges in online learning to concentrate for long hours on screen. There were learning deficiencies that has affected the abilities of these students to become more employable.
- **Structural issues**- The rapid **expansion of private** higher education institutions has led to decline in quality and regulation.
- **Lack of regulation**- State governments, the Central government and the University Grants Commission did not have the capacity to regulate the growing private institutions.
- **Traditional agriculture**- In India, agriculture is still not mechanised and it does not use advanced technologies which makes it unattractive for graduates who have higher education degrees.

- **Lack of opportunities-** Low skill jobs are taken by some graduates in service sector due to limited opportunities in the economy.
- **Low R&D expenditure-** India spends only **0.7% of its GDP** on research and development, compared to **4% in Korea** which hampers the creation of new knowledge and innovation.
- **Public-private imbalance-** R&D expenditure from private sector is comparatively less than the public sector, thus limiting the growth of private sector jobs in research and collaboration between industry and academia.
- **Limited scope for research-** Universities doesn't have research facility as it is done mostly in public research institutions, thus reducing the quality and relevance of research.
- **Lack of industrial policy-** India does **not have a clear industrial policy or a manufacturing strategy** to guide its economic development, this leads to loss of value from research.
- **Low female labour force participation-** India has achieved gender parity in higher education but it couldn't get converted into job due to unemployment.

What are the concerns with the examination system in India?

- **Rote learning-** The students are tested on memory and high pass percentage are the key objectives of the education administration.
- **Decentralised assessment-** India has diversified modes of assessment which are guided by secrecy and standardisation, this leads to scandals and other issues.
- **Inconsistency-** Question papers have errors, irrelevance and low standards. The evaluation is also unfair and inaccurate and does not reflect the students' learning outcomes.
- **Mismatch between skills and certification-** The examination boards do not test or certify the students on the higher order skills that are required for employability.
- **Alternative assessment-** The employers disregard institutional certification and have their own methods of assessing the candidates leading to a demand for coaching for preparing competitive exams.
- **New Education Policy 2020-** The policy recommended common admission basis for students but was contradicted by the introduction of the Central University Entrance Test and the idea of 'one nation, one examination'.
- **Poor fiscal support-** India has set the gross enrolment ratio to **50% from 27% by 2035** but the fund is not allocated to achieve this target.

What lies ahead?

- The universities have to be funded more and the industry should collaborate with them to boost research and innovation.
- Class 10 and Class 12 students can be diverted towards vocational training thus promoting inclusiveness and equity.
- India should have dedicated industrial policy and manufacturing strategy to guide the economic development.
- The professional bodies can be involved in curriculum design and technology should be used to standardize and enhance assessment.
- The external audit of assessment systems in universities and school boards is essential and a credible examination system is one of the key ways to improve the standard of education.

7.5 All about Foreign Contribution Regulation Act (FCRA)

Why in news?

The Foreign Contribution Regulation Act, 2010 (FCRA) registration of two prominent non-governmental organisations (NGOs) — Centre for Policy Research (CPR) and World Vision India (WVI) have been cancelled this month.

To know about civil society under siege, click [here](#)



What is FCRA?

Key provisions of FCRA, 2010	
Key aspects	Description
About	<ul style="list-style-type: none"> It regulates foreign donations and ensures that such contributions do not adversely affect internal security
Established	<ul style="list-style-type: none"> In 1976 during Emergency period amidst the apprehensions that foreign powers were interfering in India's affairs by pumping money through independent organisations
Implementation	<ul style="list-style-type: none"> <u>Ministry of Home Affairs</u>
Applicability	<ul style="list-style-type: none"> To all associations, groups and NGOs which intend to receive foreign donations.
2010 Amendment	<ul style="list-style-type: none"> Consolidated the law on utilisation of foreign funds, and to prohibit their use for "any activities detrimental to national interest".
2020 Amendment	<ul style="list-style-type: none"> Gave the Government tighter control and scrutiny over the receipt and utilisation of foreign funds by NGOs.
Filing of annual returns	<ul style="list-style-type: none"> The annual returns must be filed on the lines of Income Tax.
Foreign contribution	<ul style="list-style-type: none"> It means the donation, delivery or transfer made by any foreign source
Availing foreign funds	<ul style="list-style-type: none"> In a designated bank account at <u>SBI's New Delhi branch</u>.
Utilisation of foreign funds	<ul style="list-style-type: none"> Only for the purpose for which they have been received and as stipulated in the Act.
Who can receive foreign contribution?	<ul style="list-style-type: none"> It must have a definite cultural, economic, educational, religious or social programme with prior FCRA registration/ permission from the Central Government.
Who cannot receive foreign contribution?	<ul style="list-style-type: none"> The candidates for elections, journalists or newspaper and media broadcast companies, judges and Government servants, members of legislature and political parties or their office-bearers, and organisations of a political nature.
Aadhaar provision	<ul style="list-style-type: none"> Mandatory for all office-bearers, directors and other key functionaries of an NGO.
Administrative expenses	<ul style="list-style-type: none"> It was <u>capped at 20%</u> of the total foreign funds received, earlier the upper limit was 50%
Bar on sub-granting	<ul style="list-style-type: none"> It barred sub-granting by NGOs to smaller NGOs who work at the grass roots level.

What is the procedure for FCRA registration?

- **Apply online**- NGOs must apply online for FCRA registration with the required documents and information.
- **Role of Intelligence Bureau (IB)**- Ministry of Home Affairs (MHA) verifies the background and objectives of the applicant through the Intelligence Bureau.
- **Eligibility**- The applicant must not be involved in **any illegal or anti-national activities**, such as religious conversion, communal violence, fund misuse, or sedition.
- **Time frame**-The MHA must decide on the application **within 90 days**, or inform the NGO of the reasons for delay.
- **Validity**- 5 years.

- **Renewal**- It must be applied for **at least 6 months before the expiry date**, in case of failure to renew it will amount to expiry of registration.
- **Due date**- NGOs can appeal to the MHA **within 4 months** of the expiry of registration, by giving valid reasons for the delay.

How FCRA registration can be cancelled?

- **Right to cancel**- The Government can cancel the FCRA registration of any NGOs if it finds to be in violation of the Act.
- **Grounds for cancellation**- It can happen if the NGO is found to be dishonest, inactive, defunct or harmful to public interest, or if it misuses foreign funds.
- **Right to be heard**- As per the act, no order of cancellation of certificate can be made unless the person or NGO concerned has been given a reasonable opportunity of being heard.
- **Right to Appeal**- All orders of the Government can be challenged in the High Court.
- **Re-registration**- If NGOs registration is cancelled, it can apply for re-registration **only after 3 years**.
- **Suspend NGOs activities**- MHA can suspend or freeze the NGO's registration and funds for **180 days** during inquiry.

The Government reserves the right to cancel the FCRA registration of any NGO if it finds it to be in violation of the Act.

Since 2015, the FCRA registration of more than 16,000 NGOs have been cancelled on account of violation.

Quick Facts

Centre for Policy Research

- It is a **non-profit**, non-partisan, independent institution founded in 1973.
- It was dedicated to conducting research that contributes to high-quality scholarship, better policies, and a more robust public discourse about the issues that impact life in India.
- It is a member of the Indian Council of Social Science Research and is recognised by the Department of Science and Technology (DST).
- Its funders have included the Government of India, the Bill and Melinda Gates Foundation, and the Ford Foundation, among many others in India and abroad.

World Vision India (WVI)

- It is a non-governmental organisation (NGO) that focuses on children's issues.
- The U.S.-based organisation is one of the world's largest voluntary groups, with a presence in over 100 countries.
- It has been operational in India for the past 70 years.

7.6 Reforms in Geographical Indication (GI)

Why in news?

India's two-decade journey with Geographical Indication (GI) tags has shown limited out-come and there is an urgent need to simplify the registration processes.

What is Geographical Indication tag?

- **GI definition**- It is defined under Article-23 and 24 of the ***Trade-Related Aspects of Intellectual Property Rights (TRIPS)*** Agreement of the World Trade Organization (WTO).
- **GI tag** is a form of certification that recognises unique products based on their origin.
- **Characteristics** - GI tagged products can be natural or man-made.

The first product in India to be accorded with GI tag was Darjeeling Tea in 2004-05.

- The raw materials for such products do not necessarily have to come from that region, unless it is an agricultural tag.
 - For instance, the mulberry silk used in Kancheepuram sarees comes from Karnataka, and the gold zari from Surat.
- The essential difference between GI and other [intellectual properties \(IP\)](#) is that, GI is a collective Intellectual Property Right.
- India**- It is a member of WTO and enacted the **Geographical Indications of Goods (Registration & Protection) Act, 1999** that came into force from 2003.

Tamil Nadu has the highest number of GI tags (61) in India.

What about Geographical Indications of Goods (Registration & Protection) Act, 1999?

Key aspects	Description
Geographical Indication	<ul style="list-style-type: none"> An indication which identifies a commodity or a product as a natural good, agricultural good or manufacturing good concerning the place or region.
GI registry	<ul style="list-style-type: none"> Located in Chennai, Tamil Nadu.
Ownership	<ul style="list-style-type: none"> Any trader's body, association, or organization can apply for a GI tag.
Conditions	<ul style="list-style-type: none"> The applicants need to prove the uniqueness of the item with historical records and a complete breakdown of how the product is made.
Validity	<ul style="list-style-type: none"> No expiry date, but has to be renewed every 10 years.
Collective Intellectual Property Right	<ul style="list-style-type: none"> It is intended for a community or is a right given to a group, it is not possible to get GI registration in the name of an individual.
Authorized user	<ul style="list-style-type: none"> It can be any person claiming to be a producer of the goods in the definite geographical territory.
Appeal	<ul style="list-style-type: none"> Can be filed against Registrar's decision to the Intellectual Property Appellate Board established under the Trademarks Act, 1999.
Validity across the world	<ul style="list-style-type: none"> GI are territorial and the rights can be enforced in other countries only if it is registered in that particular country.
Penalty for GI infringement	<ul style="list-style-type: none"> Imprisonment for a term of 6 months to 2 years and fine of Rs 50,000 to 2 lakhs.

What is the significance of conferring GI tags?

- Legal protection**- It is unique and prevents any kind of exploitation by a third party as it is governed by the law.
- Symbol of authenticity**- It helps consumers to get quality products and identify between fake and genuine products.
- Economic growth**- It increases the demand for the product both at national and international markets.
- Revenue generation**- It helps producers to obtain the title of premium goods and avail proper price in the competitive market.

What are the concerns with GI registration in India?

- Low registration**- India lacks in GI registration compared to other nations, India lags in GI registration.
- Strict regulations**- As per GI registry, India received 1167 applications, only 547 products have been registered. This means the application acceptance ratio is only about 46%.
- Geographical disputes**- It took over a decade for the famous Alphonso mango to receive GI registration due to disputes over geography.
- Outdated law**- The Act for GI is enacted in 1999, and needs to be updated to make it more user friendly and effective.

- **Ambiguous definition-** The definition of “producers” under the law lacks clarity, which results in the involvement of intermediaries who share the benefits that go to the producers.
- **Limited classification-** In many European Union nations, GI is classified into 2 categories namely Protected GI (PGI) and Protected Destination of Origin (PDO) but India has the PGI category only.
- **International conflict-** Some countries have claimed exclusive rights to certain GIs, such as “*Darjeeling*” for tea and “*Basmati*” for rice, while others have argued that these names have become generic or that they have prior trademarks on them.
- **Lack of research-** Country wise publications is dominated by European countries and India has very limited publications.

What lies ahead?

- **Provide incentives-** The Government should provide incentives and legal protection to the GI producers, and exclude the non-producers from the GI benefits.
- **Testing facility-** The quality and accessibility of GI products should be ensured by setting up testing labs and creating a separate tab on eNAM.
- **Holistic approach-** The government’s [One District One Product](#) scheme should be integrated with GIs through the involvement of food producer organisations.
- **Leverage technology-** The Government should use technology and skill-building to enhance the capacity and competitiveness of the GI producers.
- **Special trade agreements-** EU-India agreement on GIs, can facilitate the recognition and exchange of GI products between countries that share a common interest in GIs.
- **Promotional activities-** The protection of GI products should be enhanced by organising exhibitions, involving embassies, advocating at WTO, and supporting the “vocal for local” initiative.

8. HEALTH

8.1 Anti-Microbial Resistance in India

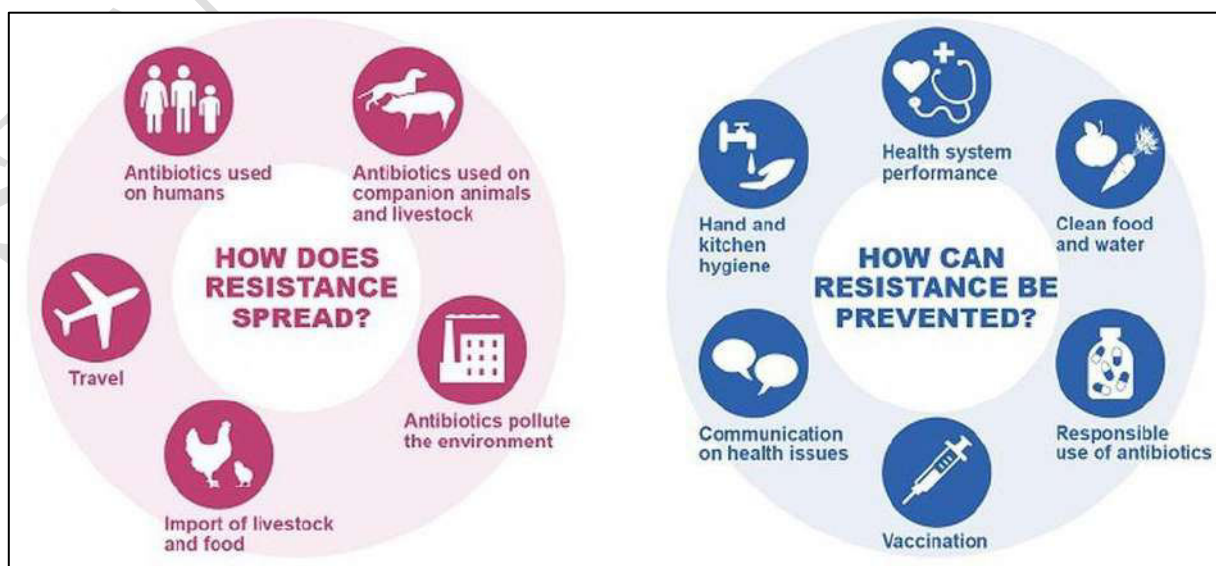
Why in news?

Recently the National Centre for Disease Control (NCDC) in a study found that over half of the nearly 10,000 hospital patients surveyed were given antibiotics to prevent, rather than treat, infection.

What is Antimicrobial Resistance (AMR)?

- It is defined as resistance of micro-organisms to an antimicrobial agent to which they were first sensitive.
- Microorganisms that develop [antimicrobial resistance](#) are sometimes referred to as “superbugs”.

Antimicrobials including antibiotics, antivirals, antifungals and antiparasitic - are medicines used to prevent and treat infections in humans, animals and plants.



- **Indian context-** The present serious concern is that multiple types of bacteria like E. coli, Klebsiella, Acinetobacter, Staphylococcus aureus, enterococcus have even become resistant to some of the latest generation antibiotics.
- AMR causes higher mortality and morbidity due to drug resistant infections.
- India carries one of the largest burdens of drug-resistant pathogens worldwide.

The World Health Organization (WHO) included AMR as one of the top 10 threats to public health in 2019.

What are the causes of AMR?

- **Indiscriminate use-** The inappropriate use of [antibiotics](#) in non-bacterial infections both because of prescribing practices and the use of over-the-counter antibiotics.
- **Lack of research-** Inadequate laboratory facilities to inform clinicians rapidly about what would be an appropriate antibiotic even in bacterial infections, based on cultures.
- **Lack of capacity building-** Due to lack of adequate training in antibiotic selection, escalation and de-escalation.
- **Lack of regulation-** Inadequate monitoring of AMR and control of antibiotic and dispensing practices by health systems in spite of repeated warnings.
- **Market promotion-** The pharmaceutical industry is incentivizing the antibiotic prescribing practices of doctors.
- **Superbugs-** Inappropriate use of antibiotics and other molecules used to treat or prevent infections in the human, animal and agricultural sectors generate bugs that are resistant to these drugs.
- **Improper sanitation-** This leads to the spread of superbugs due to inadequate infection prevention in healthcare institutions.
- **Lack of support-** AMR is a complex socio-economic and political challenge and not just a scientific issue, it needs support from the pharmaceutical industry, awareness to the patients etc.,
- **Speedy treatment-** The course of antibiotics is cheaper than the investigation of patients, which is time consuming.
- **Infrastructural deficit-** India lacks laboratories to speed up the patient's investigation making it costly, which results in over prescription of antibiotics.

What is the way forward?

- **Promote research-** The need of the hour is linking labs to all levels of clinical setups and the fast transmission of infection-related data between the lab and the clinician.
- **Holistic approach-** The rate of AMR is directly proportional to steady and strong governance, infrastructure, sanitation, poverty, access to clean drinking water, etc.,
- **Patient safety measures-** The factors such as sanitation in hospitals, basic access to personal hygiene and infection control, are vital.
- **Enhance infection prevention-** The basic steps such as washing hands regularly, use of sanitizers helped a lot to keep the infection under control during COVID-19, such practices must be adopted to prevent AMR.

Steps taken to control AMR

Global initiatives

- **Global Action Plan on AMR-** It is committed to the development and implementation of multisectoral national action plans which was launched by the World Health Assembly in 2015.
- **World Antibiotic Awareness Week-** A global campaign that aims to raise awareness of AMR worldwide.
- **Global Anti-Microbial Resistance and Use Surveillance (GLASS)** – Launched by WHO in 2015 to strengthen AMR surveillance.
- **Muscat Ministerial Manifesto-** It has 3 goals - to protect the efficacy of antimicrobials and curb the development of AMR worldwide, reduce environmental pollution and lower the spread of AMR.
- **Access, Watch and Reserve (AWaRe)** – An initiative of WHO that takes into account the impact of different antibiotics.

India's initiatives

- **National Action Plan on AMR (NAP-AMR) for 2017-2021** addresses 6 critical issues.
- The country is in the process of updating its NAP-AMR for the period 2022-2026 through an extensive consultative process.
- **One health consortium**- Country's first one health consortium that enhance medical surveillance.
- **Delhi Declaration on AMR**- A multi-sectoral initiative to recognize the emergence and spread of AMR and to adopt a collaborative approach for preventing AMR.
- **Indian priority pathogen list**- Implemented to guide, research, discovery and development of new antibiotics.
 - **Types of priority**- Critical, High, Medium.
 - Example of critical priority- Colistin-R.
- **Red Line Campaign**- Aimed at discouraging unnecessary prescription and over the counter sale of antibiotics.
- **Chennai Declaration**- To formulate recommendations to tackle AMR.

8.2 Lancet Countdown Report 2023

Why in news?

A new report by the Lancet Countdown on Health and Climate Change warns of the severe health consequences of climate change in India.

Lancet Countdown Report

- The Lancet Countdown is global research collaboration that tracks the relationship between **public health and climate change**.
- **2023 report**- It tracks the relationship between health and climate change across 5 key domains and 47 indicators.
- It warns that from 2018 to 2022, average summer temperature increased by 0.5°C compared to the 1986-2005 baseline average, with severe implications for public health.
- The report highlights the grave and mounting threat to health of further delayed action on climate change.
- It also emphasizes that **COP28** could help deliver through commitments and action to accelerate a just transition.

What are the key highlights of the report?

- **Rise in temperature**- It poses a significant threat to lives, health and wellbeing, leading to an increased risk of death and heat-related diseases.
- **Vulnerable group at risk**- Due to elevated temperature older individuals, socio economically deprived communities, very young children, pregnant women and those with underlying health issues are particularly at risk.
- **Impact on health**-

Category	2013-22 vs 1986-2005 timeline
Children under age 1	43% increase in heatwave days
Adult over age 65	216% increase in heatwave days
- **Economic fallout**- Agricultural workers face the brunt experiencing 64% of potential hours lost and 55% of potential income loss.
- **Urgent call for action**- The report stresses the critical need for immediate action, emphasizing the urgency of strengthening local health systems, adapting to climate change and reducing greenhouse gas emissions.
- **Air pollution**- The report addresses the health impact of air pollution, attributing increasing deaths to small particulate matter (PM_{2.5}) generate from human activities.

- **Energy transition**- Transition to renewable energy is identified as a crucial step to mitigate air pollution, reduce greenhouse gas emission and promote universal, affordable and clean energy.
- **Drought** - India's vulnerability to extreme weather events including drought is outlined impacting crop yields, livestock and food security.
- **Spread of diseases**- The suitability for the spread of infectious diseases like malaria, dengue has increased due to climate change.
- **Local engagement**- The report emphasized the importance of locally relevant data and research to inform policies and enable government to take a leading role in championing health centered climate action.
- **Global collaboration**- The report gives a call for global collaboration to address the urgent challenges posed by the climate change.

In 2022, India lost 191 billion labour hours due to heat, which was 54% more than in 1991-2000.

To know about the unhealthy urban India click [here](#)

What lies ahead?

- *Climate negotiations* must drive a rapid and sustained shift away from fossil fuels, accelerate mitigation, and increase support for health adaptation.
- The *coordinated action* of health professionals, policy makers, corporations, and financial institutions is the need of the hour to ensure a thriving future.
- *Health-centred urban redesign* can promote safe active travel, reduce building and transport-based air pollution and GHG emissions, and increase resilience to climate hazards

8.3 Organ Transplantation

Why in news?

Delhi High Court has prescribed an ideal timeline of 6-8 weeks to complete the process of transplanting organs from living donors.

What is the issue?

- A retired IAF officer needed a kidney transplant due to kidney failure and hypertension, his application was denied in 2 hospitals.
- Delhi High Court intervened and ordered to expedite the process, but the petitioner died before getting a transplant.
- The Centre claimed that the committee followed the 2014 rules and decided within a week of receiving the documents.
- The Court prescribed a timeline of 6-8 weeks for the entire process, from submission to decision, to avoid further suffering and loss of lives.

*The **Transplantation of Human Organs and Tissues Act, 1994** serves as the primary legislation governing the processes of organ donation and organ transplantation in India.*

What are the provisions described under Transplantation of Human Organs and Tissues Act, 1994?

Aspects	About
Aim	Regulation of storage, removal, and transplantation of different types of human organs that can be used for therapeutic purposes.
Brain death	<ul style="list-style-type: none"> • The Act defines brain death as an accepted form of death. • The Act also defines the process and the criteria meant to be used for the purpose of brain death certification.
Donors for organ transplantation	It can be either from a pool of organs of deceased persons donated by their relatives or from a living person who is known to the recipient
Living donations	It is from close relatives such as parents, siblings, children, spouses, grandparents, and grandchildren.

Altruistic donations	It is from distant relatives, in-laws, or long-time friends are allowed after additional scrutiny to ensure there is no financial exchange.
Authorization committee	2014 rules established the committee which oversees and approves organ transplant procedures involving donors and recipients who are not near relatives.
Institutional support	<ul style="list-style-type: none"> National Organ and Tissue Transplant Organization, Regional Organ and Tissue Transplant Organization, State Organ and Tissue Transplant Organization.
Penalty	Illegal activities will attract jail term up to 10 years and fine up to 10 crores.

What is the role of Authorization committee?

- The approval is crucial, especially in cases where organs are donated for reasons of affection, attachment or other special circumstances, to ensure ethical compliance and prevent illegal practices.
- Composition-** It shall be prescribed by the Central Government from time to time and that state government and Union Territories.
- Inquiry-** The committee is expected to conduct a thorough inquiry while reviewing applications for transplant approval.
- Verification-** The crucial aspect of the inquiry is to verify the authenticity of the donor and recipient and ensure that the donation is not driven by commercial motives.
- Data collection-** The committee is responsible for maintaining data on available organs and granting permissions for organ transplants.
- Expedite evaluation-** If a recipient is in a critical condition and needs transplantation within a week, the hospital can be approached for evaluation.

9. BILATERAL ISSUES

9.1 Sheikh Hasina re-elected as Bangladesh PM

Why in news?

Sheikh Hasina's re-election as Prime Minister of Bangladesh will have positive impact on bilateral ties with India.

What is the history of India Bangladesh relations?

- Historical relations-** Both India and Bangladesh were under the British colonial rule and Rabindranath Tagore wrote the national anthem for both countries.
- Partition of British India, 1947-** Bengal region was partitioned based on religious lines.
- Diplomatic relation-** India granted diplomatic recognition to Bangladesh as an independent and sovereign country and provided critical military and material support during **Bangladesh Liberation War 1971**.
- Maitri Diwas-** Bangladesh and India celebrate Friendship Day on 6th December commemorating India's recognition of Bangladesh and the continued friendship between the two countries.
- Ganga Water Treaty, 1996-** It is a 30 year treaty to share surface waters at the Farakka Barrage near their mutual border.
- Land Boundary Agreement, 2015-** The Bangladeshi enclaves in India and Indian enclaves in Bangladesh were transferred by this agreement.
- Shonali Adyaya-** In 2022, both countries inked an agreement on the sharing of waters of the common border river **Kushiyara**, the first pact since 1996 Ganga Waters Treaty.

Bengal region	Control
East Bengal	Dominion of Pakistan
West Bengal	Dominion of India

Sharing 54 rivers and a 4,096-km border, the India-Bangladesh border is the longest land boundary India has with any of its neighbours.

- **Economic relations-** Bangladesh has emerged as India's largest trade partner in South Asia, and India is the 2nd biggest trade partner of Bangladesh.
- Bangladesh started using rupees in its trade transactions with India last year to reduce dependence on the U.S. dollar and strengthen regional currency.
- **Comprehensive Economic Partnership Agreement (CEPA)-** A joint feasibility study is conducted in 2022 which reduces or eliminate customs duties on traded goods and simplify trade norms.
- CEPA gains additional significance as Bangladesh is set to lose its Least Developed Country (LDC) status after 2026, thereby losing its duty-free and quota-free market access in India.
- **Regional trade agreements-** Both are part of Asia Pacific Trade Agreement (APTA), SAARC Preferential Trade Agreement (SAPTA), Agreement on South Asian Free Trade Area (SAFTA) and Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation ([BIMSTEC](#)) which govern the tariff regimes for trade.
- **BIMSTEC Master Plan for Transport Connectivity-** It is a comprehensive plan that aims to enhance regional connectivity and integration among the member countries of the BIMSTEC.
- **COVID-19 assistance-** India was the first country to provide free vaccines around 2 million Covishield to Bangladesh to assist in its efforts to fight against the pandemic.
- **Regional connectivity-** In 2022, **Akhaura-Agartala rail link** was inaugurated that connects Bangladesh and the northeast through Tripura.
- **The Khulna-Mongla Port rail link** is the project constructed in Bangladesh with financial assistance from India.
- A cross-border bus service operates from Shillong, Agartala and Kolkata to Dhaka.
- **Maitri Setu-** The **Sabroom Bridge** over the Feni river reduces the distance between Tripura and [Chittagong port](#).
- **India Bangladesh Protocol Route-** It is an inland water transit and trade protocol under which inland vessels of one country can transit through the specified routes of the other country.
- **Protocol on Inland Water Transit and Trade (PIWT&T)-** It allows the use of the waterways for the movement of goods and people.
- **High Impact Community Development Projects (HICDPs)-** It constitute an active pillar of India's development assistance, around 74 projects have been assisted by India.
- **Defence relations-** **Exercise Sampriti XI** is the annual joint military exercise held at Umroi in Meghalaya.
- **Cultural cooperation-** **Indira Gandhi Cultural Centre (IGCC) and Indian Cultural Centre in Dhaka** plays a crucial role in celebrating the cultural links between the two countries.
- **Capacity building-** India announced 1000 "**Suborno Jayanti Scholarships**" for Bangladeshi students and in 2022.

Former PM of Bangladesh 'Bangabandhu' Sheikh Mujibur Rahman recognised that friendship with India is a cornerstone of the foreign policy of Bangladesh.

Sheikh Mujibur Rahman and Indira Gandhi laid the foundation of bilateral relations through a 25-year Friendship Treaty in 1972

What are the concerns in their bilateral ties?

- **Rohingya crisis-** Bangladesh hosts over a million refugees from Myanmar and seeks India's help to repatriate.
- **Teesta water sharing-** Bangladesh shows concern about lack of agreement on sharing the river water with India, which depends on West Bengal's consent.
- **China factor-** Bangladesh is China's best option to break out of its '**East Asia Mould**' and strengthen its maritime presence in the Indian Ocean.
- **Geopolitical dynamics-** US has imposed sanctions and visa restrictions on Bangladesh for eroding democracy and human rights, which might pose a formidable challenge for India.

What lies ahead?

- Despite concerns, both have shared a warm and cordial relationship based on mutual trust and a friendship that goes beyond the arithmetic of economic gains and losses.
- India should foster cordial relation in line with its '**Act East**' policy to counter China's expanding influence in the Indo-Pacific and build a friendly and stable neighbourhood.

9.2 Relevance of Chabahar Port to India

Why in news?

India and Iran are set to hold talks to establish "long-term cooperation framework" on Chabahar port.

Chabahar Port

- Chabahar is **Iran's** first deepwater port and sits at the mouth of the **Gulf of Oman**.
- It is Iran's only oceanic port situated in Sistan and Baluchistan Province, on the Makran coast.
- It consists of 2 main ports - **Shahid Kalantari** and **Shahid Beheshti**.
- Chabahar port project**- It was signed in 2003 between **India and Iran**.
- Trilateral Transit and Trade Agreement**- It was signed in 2016 between **India, Afghanistan and Iran**.
 - India was granted a 10-year lease and access to the Chabahar free trade zone.
 - India got the opportunity to build the 628 km rail line from Chabahar to Zahedan, just across the border from Afghanistan.
- India is restricted to the Shahid Beheshti port that is undertaken by India Ports Global Limited (IPGL) which is established for the development of ports overseas.



Why Chabahar port is crucial to India?

- Geostrategic location**- [Chabahar port](#) has geographic proximity to countries such as Afghanistan, Pakistan, and India.
- Access Afghanistan**- India can bypass Pakistan which does not allow India land access for trade with Afghanistan and Central Asia.
- Infrastructure development**- The **Zaranj-Delaram road** constructed by India in 2009 can give access to Afghanistan's Garland Highway, setting up road access to four major cities in Afghanistan - **Herat, Kandahar, Kabul and Mazar-e-Sharif**.
- Gateway to Central Asia**- It will boost India's access to Iran, the key gateway to the **International North-South Transport Corridor (INSTC)** that has sea, rail and road routes between India, Russia, Iran, Europe and Central Asia.
- Counter China**- It will be beneficial to India in countering Chinese presence in the Arabian Sea which China is trying to ensure by helping Pakistan develop the **Gwadar port**.
- Defence ally**- The port being developed and operated by India, Iran also becomes a military ally to India.
- Reduce import bill**- There will be a significant boost in the import of iron ore, sugar and rice to India.
 - The import cost of oil to India will also see a considerable decline.
- Connectivity hub**- It will ensure in the establishment of a politically sustainable connectivity between India and Afghanistan leading to better economic ties between the two countries.
- Diplomatic engagement**- The port could be used as a point from where humanitarian operations could be coordinated.

INSTC is a multi-modal transportation project linking the Indian Ocean and Persian Gulf to the Caspian Sea via Iran, and onward to northern Europe via St Petersburg in Russia.

Gwadar port is located in Pakistan and is less than 400 km from Chabahar by road and 100 km by sea.

Why there is delay in the development of Chabahar port by India?

- Geopolitical roadblocks**- The main obstacle has been the fluctuating relations between the US and Iran, which has affected the supply chain through US sanctions.
- Uncertainty in Afghanistan**- The volatile and uncertain political situation due to rise of Taliban regime is also a cause of concern.

- **Red sea crisis**- The conflict between [Israel and Hamas](#) in Gaza has spilled over to the Red Sea, where Iran-backed Houthi rebels have attacked commercial ships, provoking responses from the US and the UK adding to the instability of the region.
- **Iran Pakistan strikes**- Both exchanged missile strikes against military groups on their borders on the common Baloch problem thus creating new challenges for the Chabahar project.

What lies ahead?

- Through active and visionary diplomacy and efficient implementation and operations of the project, Iran and India can overcome the delays in the development of Chabahar port.
- India should be able to maintain Chabahar project as a viable transit hub and link to serve as a reliable and competitive route for transportation among India, Afghanistan, Central Asia, and beyond.

10. INTERNATIONAL ISSUES

10.1 Impact of Red Sea Trouble on Indian Trade

Why in News?

Recent attacks on commercial ships near the Red Sea amidst the ongoing Gaza war impacts India's global trade.

What is Red sea?

- The [Red Sea](#) is a narrow inland sea between Africa and the Arabian Peninsula.
- The nearly 2,000-km Red Sea connects the Mediterranean Sea with the Indian Ocean via the narrow **Suez Canal** (since 1869).
- It is connected to the Arabian Sea and the Indian Ocean to the south through the Gulf of Aden and the narrow strait of Bab el Mandeb.
- The **Bab-el-Mandeb Strait**, also known as the "**Gate of Tears**" in Arabic, is a crucial trade route that connects the Mediterranean Sea and the Indian Ocean via the Red Sea and the Suez Canal.
- **Bordering countries** – Egypt, Saudi Arabia, Yemen, Sudan, Eritrea and Djibouti.



Why trade across red sea is important?

- **Historical significance** – There are evidences of Indian diaspora in the Middle East even at the time of Meluha (the Indus Valley Civilisation, c. 3300-1300 BCE).
- In the 1st and 2nd century CE, maritime highway linked the Roman Empire and India through the Red Sea, with many 100's of ships going in both directions each year.
- **Economic significance** – Suez Canal was opened in **1869** and since then, it has become the busiest trade route as it reduced distance between Europe and Asia by 7000km.
- **Geopolitical significance** – The narrow Suez Canal is strategically located connecting west and east.

What is the impact of Red Sea trouble on Indian trade?

- **Stopping vessel movements** – Major cargo shipping lines decided they would not operate on this route and even small feeder vessels have of late stopped plying in these waters.
- **Re-routing of ships** – Almost 90% of western hemisphere cargo, both inbound or shipped from India is now getting re-routed **through the Cape of Good Hope**.
- The remaining 10% of Indian import or export cargo is either not moving or using a transit facility.
- **Higher transit time** – Trade with Europe, the U.S. east coast and to North Africa is taking the longer route and thus elongating both export and import cycles.
- **Holding back the consignment** – Roughly 20-25% consignments are being held up.

- **Increase in freight costs** – It may affect all consignments by up to 6-fold in some cases which may also be due to peak season surcharge and contingency surcharge.
- **Increased Insurance costs** – They are not sure of what will happen to the ships as more escorts are needed.
- **Higher fuel burning** – Long route ships could burn a million dollars' worth of fuel per trip.
- **Costlier imports** – Final products could turn dearer and it could affect the plans to reduce pump prices of petrol and diesel.
- **Affects commodity sectors** – The worst affected sectors are chemicals, plastic, petrochemicals, because margins are not there to absorb the hike in freight.

What lies ahead?

- The Indian navy is monitoring the overall situation in coordination with national maritime agencies.
- **Enhanced maritime surveillance** – Indian Navy's destroyers and frigates are undertaking maritime security operations and rendering assistance to merchant vessels in case of any incident.
 - *INS Chennai* closely followed the hijacked MV Lila Norfolk ship and rescued all 21 crew, including 15 Indians, onboard.
- **Aerial surveillance** – A complete maritime domain awareness is done by using long-range maritime patrol aircraft and remotely piloted aircraft.
- **Strengthening 'Operation Prosperity Guardian'** – US spearheaded multinational operation to keep the sea lanes open and free of threats but *India is yet to decide on joining it*.



10.2 Iran Pakistan Strikes

Why in news?

India backed Iran on its strikes on alleged terror camps in Pakistan's Balochistan Province, calling it an act of "self-defence".

What is the issue?

- **The issue** - Iran has carried out a 3rd strike in reprisal for the January 3 terror attack in **Kerman** that killed over 80 people.
- Baloch people, who live in both Pakistan and Iran, are attacked by both countries leading to rebellion across the border.
- Iran struck 3 countries in one day namely Iraq, Syria and Pakistan.
- **India's stand** - India supported Iran's action in Pakistan as "self-defence" against terrorism.
- It indicates India's support for Iran despite the growing tensions in West Asia between Iran and the U.S.
- **Role of Pakistan** - Pakistan conducted a series of specifically targeted precision military strikes in Iran's southeastern Sistan and Baluchistan province as part of an operation called "**Marg Bar Sarmachar**".
- The tit-for-tat strikes are the highest-profile cross-border intrusions in recent years and have raised alarm over wider instability in the Middle East since the war between [Israel and Hamas](#).



Common Baloch Problem

- **Goldsmith Line**- It is the 909-km **Iran-Pakistan border** stretches from a tripoint with Afghanistan to the northern Arabian Sea.

- **Population-** Ethnic Baloch live in Pakistan, Iran and Afghanistan.
- They also nurse deeply rooted grievances against both the Pakistani and Iranian states.
- **Economic status-** The Baloch homeland is rich in natural resources but in Iran, 80% of the Baloch population lives under the poverty line.
- In Pakistan, massive investments in projects such as China's Belt and Road initiative have not improved their lives.
- **Baloch nationalism-** It traces its roots to the early decades of the 20th century, when new international borders came to be drawn in the region.
- Their marginalisation in both countries in subsequent years fuelled several separatist movements for a "**Greater Balochistan**" nation state.



Why India's role is significant in Iran-Pakistan strike?

- **Strategic location-** Balochistan is a region that spans across Pakistan, Iran, and Afghanistan, and has a strategic position at the mouth of the **Persian Gulf**, a vital waterway for global oil trade.
- **Connectivity-** Balochistan also has access to the Arabian Sea and the Indian Ocean, making it a potential hub for maritime connectivity and trade.
- **Geopolitical dynamics-** Balochistan is home to Baloch minority which is strategically important for the global powers that are competing for influence in Central Asia and the Middle East.
- **New great game-** It refers to the rivalry and competition among regional and global powers for influence and resources in Central and South Asia, especially in Afghanistan and its neighbouring countries.
- **China factor-** China has a strategic interest in **Gwadar**, a port city in Balochistan, as part of its Belt and Road Initiative and its naval ambitions in the Indian Ocean.
- **Security concerns-** Balochistan's proximity to Afghanistan, where the [Taliban regime](#) has recently taken over, adds to the complexity and uncertainty to the regional security dynamics.
- **Change in foreign policy-** India as a rising power with growing economic and security interests in the region, needs to rethink its traditional neutrality and passive approach in the Middle East and Central Asia.
- **India-Iran ties-** They have cooperated in the energy sector despite US sanctions on Iran, India has developed a meaningful dimension with Iran.
- **Chabahar port-** India is involved in the planning and building of the [Chabahar port](#), intended to allow it to bypass the overland route through Pakistan for trade with Afghanistan and Central Asia.
- Chabahar directly competes with Pakistan's China funded Gwadar port, keeping a check on growing China's influence in the neighbourhood region.

10.3 Global Nuclear Order (GNO)

Why in news?

Created in the shadow of the Cold War, the GNO has held reasonably well, but is facing pressures under changing geopolitics

What is GNO?

- **Historical background** – It was created in the shadow of the Cold War, with the U.S. and the U.S.S.R., leading the western and the Socialist blocs, respectively.
- Following the 1962 Cuban Missile Crisis, both US and USSR understood 2 political realities leading to the creation of GNO.
 - A need of bilateral mechanisms to prevent tensions from escalating to the nuclear level.
 - The nuclear weapons are dangerous and, therefore, their spread should be curbed.
- **Pathway to control proliferation** – The U.S. and the U.S.S.R. initiated multilateral **negotiations in Geneva in 1965** on a treaty to curb the spread of nuclear weapons.
- In 1968, **Nuclear Non-Proliferation Treaty (NPT)** began with less than 60 parties but today, it is widely described as the cornerstone of the global nuclear order with 191 adherents.
- **India's standpoint** - India had chosen **not to sign the NPT**, and in 1974, stunned the world by conducting an underground peaceful nuclear explosive (PNE).
- **London club – 7 countries** (the U.S., U.S.S.R., U.K., Canada, France, Japan, and West Germany) proposed ad hoc export controls to ensure that nuclear technology, transferred for peaceful purposes, not be used for PNEs.
- **Nuclear Suppliers Group (NSG)** – The London Club later transformed into NSG, with **48 countries** to observe common guidelines for exporting nuclear and related dual-use materials, equipment, and technologies.



Though the Soviet Union and India enjoyed close relations with the Indo-Soviet Friendship Treaty in 1971, the USSR was committed to upholding the GNO, and a founding member of the London Club.

How GNO has performed?

- **Nuclear taboo** – It has been held since 1945 and humanity has survived 75 years of the nuclear age without blowing itself up.
- **Successful non-proliferation** – While more than 20 countries were predicted to possess nuclear weapons by the 1970s, (5 in 1968 – the U.S., U.S.S.R., U.K., France, and China), **only 4 countries have since gone nuclear**, i.e., India, Israel, North Korea, and Pakistan.
- **Strategic stability** – It is based on assured **2nd strike capability**, guaranteed by the enormous arsenals that both US and Russia had built up.
- This eliminated any incentive to strike 1st ensuring deterrence stability.
- Arms control negotiations led to parity in strategic capacities creating a sense of arms race stability, and fail-safe communication links provided crisis management stability.
- **Denuclearisation – Belarus, Ukraine, and Kazakhstan** were denuclearised that hosted Soviet nuclear weapons and possessed some capabilities.
- **Extension of NPT** – In 1995, the NPT, originally concluded for 25 years, was extended into perpetuity.
- **Active role of USA** - Between 1977 to 1988, the U.S. actively subverted Taiwan's nuclear weapons programme as it stepped up a normalisation of ties with China.
- During the 1970s, South Korea considered a nuclear weapons programme but France withdrew its offer to supply a reprocessing plant to South Korea under U.S. pressure.

Since the late 1980s, the U.S. and Soviet arsenals have declined sharply, to below 12,000 bombs today mostly due to the end of the Cold War rivalry and the breakup of the U.S.S.R.

- **Limitations** – Arms control did not end the US-USSR nuclear race.
 - In fact, their arsenals grew from 28,000 bombs in 1962 to over 65,000 bombs in the early 1980s.

How the changing geopolitics impacts GNO?

- **Multipolar world** – Today's nuclear world is no longer a bipolar world and U.S. faces a more assertive China, determined to regain influence, regionally and globally.
- **Emergence of China** – As its nuclear arsenal continues to grow, *China may soon become the 3rd nuclear superpower*, joining the United States and Russia.
- **Withdrawal from treaties**
 - **USA** – It withdrew from the *Anti-Ballistic Missile (ABM) Treaty* in 2002 and from the *Intermediate-Range Nuclear Forces (INF) Treaty* in 2019.
 - **Russia** – It de-ratified the *Comprehensive Nuclear Test Ban Treaty (CTBT)* in 2023.
- The only remaining agreement, *New START*, will lapse in 2026.
- **Erosion of strategic stability** – The 2021 Geneva meeting got collapsed with the Ukraine war.
- Moreover, Russian nuclear warning to NATO and the U.S. against escalation in Ukraine has revived nuclear concerns.
- **US bias over non-proliferation** – The US turned a blind eye when Israel went nuclear in the 1960s-70s and again, when China helped Pakistan with its nuclear programme in the 1980s.
- Recently, it had the nuclear submarine *AUKUS deal* (Australia, U.S., and U.K.) reducing the influence of NPT.
- **Change in stance of countries** – Domestic compulsions are turning the U.S. inwards, raising questions in the minds of its allies about its 'extended deterrence' guarantees, especially in East Asia.
 - A shift is visible in Japan's decision to double its defence spending over next 5 years.

What lies ahead?

- There are 2 conditions to gain legitimacy
 - A convergence among the major powers.
 - A successful presentation of the outcome as a global public good to the rest of the world.

10.4 ICJ's Ruling on Genocide Case

Why in news?

Recently, the International Court of Justice (ICJ) gave its interim ruling on [South Africa's genocide case](#) against Israel.

What is the ruling of ICJ over South Africa's case?

- The International Court of Justice ordered that Israel must prevent acts of genocide in its military operations in Gaza, following a case brought by South Africa.
- ICJ did not rule on the core of the case brought by South Africa, that is, whether Israel is committing genocide in Gaza. But an overwhelming majority of the 17 judges presiding over the case voted for emergency measures to be implemented.
- The court ruled that there is a sufficient evidence of dispute for the genocide case to proceed, and that the ICJ has the jurisdiction to rule on the matter.
- The court pointed to Israel's large-scale military operation in Gaza by land, air, and sea which caused massive civilian casualties, destruction of civilian infrastructure, and displacement of 1.2 million people in the region.
- The court's ruling was welcomed by South Africa and condemned by Israel.

What are the provisional measures ordered by the ICJ?

- **Within the ambit of Genocide convention**- The court said that Israel must take all steps in its power to prevent the commission of all acts under **Article 2** of the United Nation's 1948 Genocide Convention.
- Article 2 not only includes killing and causing bodily and mental harm, but also preventing births within a group and inflicting conditions of life calculated to bring about a group's physical destruction.

Article 2 defines genocide as acts committed with intent to destroy, wholly or partly, a national, ethnic, racial, or religious group.

- **Stop the genocide act-** The World Court also said that Israel must prevent its military from committing any genocidal acts “with immediate effect”.
- **Avoid genocide statements-** Israel must take all steps in its power to prevent and punish, the direct and public incitement to commit genocide in relation to the Palestinians in the Gaza Strip.
- **Humanitarian assistance-** The court directed Israel to provide humanitarian assistance and other basic services to the Palestinians in Gaza, referring to Palestinians as a protected group under the Genocide Convention,
- **Evidence preservation-** The World Court entrusted Israel with the task of preserving evidence in Gaza related to alleged acts under Articles 2 and 3 of the Genocide Convention.
- **Transparency-** The access to such evidence should not be denied by fact-finding missions, international mandates, and other international bodies.
- **Submit report-** The court asked Israel to submit its report to the ICJ on measures taken to implement the ruling **within one month**.

What lies ahead?

- The ruling is significant that binds Israel to its obligation to prevent acts of genocide in its ongoing military operations in Gaza.
- The order is a moral and legal indictment of Israel for bombing health facilities, safe areas, and densely populated areas, and calls for the world to goad Israel into complying with the measures.
- The court’s rulings are legally binding, it has no way to enforce them. But its opinions carry weight with the UN and other international institutions.
- The court will eventually decide whether Israel is committing genocide or not.

10.5 World Economic Forum Summit 2024

Why in news?

Recently, the World Economic Forum (WEF) convened its 54th Annual Meeting in Davos - Klosters, Switzerland.

World Economic Forum (WEF)									
<ul style="list-style-type: none"> • Established- In 1971 as a not-for-profit foundation. • Founder Chairperson- Economist Klaus Schwab. • Objective- To demonstrate entrepreneurship in the global public interest while upholding the highest standards of governance. • Annual Meeting- Held in Davos, Switzerland. • <u>Centre for Fourth Industrial Revolution-</u> Established in San Francisco to develop policy frameworks and advance collaborations that accelerate the benefits of science and technology. • The Great Reset- It is based on the assessment that the world economy is in deep trouble and there is a need for ‘Great Reset’ of capitalism. • EDISON Alliance -WEF launched the Essential Digital Infrastructure and Services Network (EDISON) Alliance which will work with governments and industries to accelerate digital inclusion. 	<table border="1"> <tr> <th colspan="2">WEF</th></tr> <tr> <td>Founded in</td><td>1971</td></tr> <tr> <td>Headquarters</td><td>Cologny, Switzerland</td></tr> <tr> <td>Summit</td><td>Davos, Switzerland</td></tr> </table>	WEF		Founded in	1971	Headquarters	Cologny, Switzerland	Summit	Davos, Switzerland
WEF									
Founded in	1971								
Headquarters	Cologny, Switzerland								
Summit	Davos, Switzerland								
	Key reports & Indices <ul style="list-style-type: none"> • Global Competitiveness Report • Global Enabling trade Report • Global Gender Gap Report • Global IT Report • Global Energy Transition Index • Global Risk Report • Global Travel and Tourism Report • Human Capital Index • Inclusive Development Index 								

What are the key takeaways of World Economic Forum (WEF) summit 2024?

- **Theme- “Rebuilding trust”** emphasising the need for global cooperation and shared solutions in a world undergoing critical challenges like climate change, geopolitical issue etc.,
- **Focus of the summit-** Promoting peacebuilding, fostering global cooperation, tackling social and economic inequalities, strengthening global health systems, and building resilient food systems.

- **Geopolitical issue-** The fragile and volatile situation in the Middle East and Europe was acknowledged, but no concrete solutions or plans were offered by the leaders.
- **Global economy-** An uncertain economic outlook called for a new model of growth that balances productivity with equity and sustainability.
- **Artificial Intelligence (AI)** - The summit discussed ways to integrate AI with other transformative technologies, like 5G, 6G, quantum computing, biotechnology, etc. to make it beneficial for all.
- **Employment generation** - The summit explored ways to harness technology for good, create inclusive growth, and ensure a just transition for all.
- **Climate action-** The urgency and importance of tackling climate change and adopting sustainable practices was emphasized, with a call for global cooperation and resource allocation.
- **Carbon neutrality-** The summit focused on achieving the objectives of a carbon-neutral and nature-positive world by 2050 while providing affordable, secure, and inclusive access to energy, food, and water.
- **China's economy-** China tried to attract more investment from the West, despite its slowing growth and trade tensions with the US.
- **Rise of India-** India showcased its economic potential, technological talent and commitment to gender equity and equality.

What is the role of India in WEF 2024 summit?

- **Impactful platform-** India hosted a multitude of events and panels to foster public engagement through roundtables, fireside chats, and interactive sessions.
- **Global leader-** Guided by the mantra '**Engage, Experience, Invest,**' India solidified its global leadership reflecting its commitment to global cooperation and progress.
- **Cashless catalyst-** The summit focused on the India's dynamic fintech landscape, uncovering its transformative influence and impact on the nation's financial sector.
- **Manufacturing destination-** The summit focused on the advantages offered by India, including incentives and end-to-end value chains for manufacturing.
- **Investment opportunities-** Karnataka, Maharashtra, Tamil Nadu, Telangana, and Uttar Pradesh garnered global attention, showcasing enormous investment opportunities in their respective states - adding to India's presence as a global trusted partner.
- **Sustainable jobs-** The summit discussed vast opportunities in India for employment generation in agriculture and renewable energy sectors to ensure a more inclusive and sustainable future.
- **Roadmap to green future-** It highlighted India's commitment and initiatives towards the Climate Action Plan and discussed goals for a greener future.
- **Women empowerment-** Leading women entrepreneurs shared their journeys towards a sustainable and innovative future.
- **Deep tech saga-** The session discussed about India's deep tech potential, ecosystem building, policy formulation, standards, and ways to boost India's deep tech competitiveness and sovereignty.

G.S PAPER III

11. ECONOMY

11.1 First Advanced Estimate (FEA) of GDP

Why in News?

Recently, the 1st Advance Estimates (FAEs) released by the government showed that India's GDP will grow by 7.3% in the current financial year (2023-24), slightly faster than the 7.2% growth in 2022-23.

What is GDP?

- **Gross Domestic Product** – GDP is defined as **total market value of all final goods and services** in an economy.
- It is used to assess the size of economy and the country's performance can be measured across years.

- Growth of GDP can be either due to increase in actual production or due to increase in prices of goods and services or combination of both.
- Nominal GDP** – It is the value of **GDP at the current prevailing prices**.
- Real GDP** – It is the value of **GDP at some constant set of prices** which is calculated by removing the effects of price inflation from the nominal GDP by **using a GDP or price deflator**.
- Since these prices remain fixed, if the Real GDP changes, then it is due to the changes in volume of production.
 - Real GDP growth rate = Nominal rate – Inflation (GDP Deflator)**
- GDP deflator** – It is the **ratio of nominal to real GDP** which gives us an idea of how the prices have moved from the base year to the current year.
 - GDP Deflator = GDP/gdp** (GDP – nominal GDP; gdp – real GDP)

Base Year is the year whose prices are being used to calculate the real GDP. In 2015, India's Central Statistics Office (CSO) introduced a new series which revised the base year from 2004-05 to 2011-12.

Parameter	GDP	GVA
Name	Gross Domestic Product	Gross Value Added
Definition	It is the market values of all final goods and services produced within the territorial boundaries of a country in a given period.	It is total value of goods and services produced within a country after deducting the costs of raw materials and inputs.
Measurement	Output, Income and Expenditure approaches.	By output reach and used as a proxy for GDP.
Purpose	It is internationally expected measure of overall economic growth of the country.	It is used to measure sector-wise details of economic activity from production side.

- Gross National Product (GNP) takes into account the value of economic activities of those who are not residents of the country as well.

GNP = GDP + Net Income Property from abroad

GDP = ΣGVA + Net taxes on Products – Net Subsidies on Products.

What is contributing to India's growth?

- GDP is calculated by 3 different methods.
- GDP calculation in India** – Calculated through income method and expenditure method.
- Data released by** – National Statistical Office (NSO) under the Ministry of Statistics and Programme Implementation (MoSPI).
- 4 main engines of GDP growth** – On basis of demand side.
 - Private Final Consumption Expenditure (PFCE)** – It is the **spending by people** in their individual capacity that accounts for **almost 60% of India's GDP**.
 - Gross Fixed Capital Formation (GFCF)** – It is the **spending towards investments** in boosting the productive capacity of the economy which typically **accounts for 30% of the GDP**.
 - Government Final Consumption Expenditure (GFCE)** – It is the **spending by governments** to meet daily expenditures such as salaries which accounts for **around 10% of GDP**.
 - Net exports** – It is the **net spending** as a result of Indians spending on imports and foreigners spending on Indian exports.

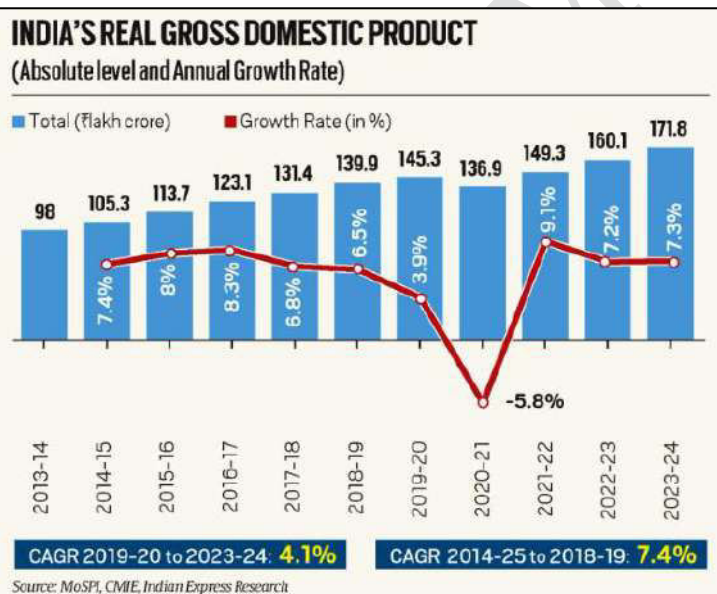
Income method	Production method	Expenditure method
<ul style="list-style-type: none"> Calculated by measuring sum total of all factor payments. GDP = Wages, Rent, Profit 	<ul style="list-style-type: none"> Calculated by measuring aggregate value of final goods and services of all firms. GDP = GVA (Gross Value Added) 	<ul style="list-style-type: none"> Calculated from the aggregate value of spending. GDP = Consumption + Investment + Government + Net Imports

- Since India typically imports more than it exports, it **drags down GDP calculations**, and shows up with a minus sign.
- As such, negative growth rates here are a good development and for the current year, this drag effect has grown by 144%.

What are Advance Estimates of National Income?

- They are indicator-based and are compiled using the **benchmark-indicator method**, i.e. the estimates available for the previous year (2022-23) are extrapolated using the relevant indicators reflecting the performance of sectors.
- **Compiled by** – MoSPI
- **1st Advance Estimates (FAE)** – They are presented at the **end of the 1st week of January every year**, the 1st estimates of growth for that financial year.
- **Calculation of FEA** – Based on the performance of the economy over the 1st 7-odd months, and the data are extrapolated to arrive at an annual picture.
- **Significance of the FAE** – They are the last GDP data released before the Union Budget of any financial year and it constitute the base for the Budget numbers.
- **Findings of FEA** – By the end of March 2024, India's GDP is expected to rise to almost Rs 172 lakh crore and on an annual basis, the growth rate estimated for 2023-24 is 7.3%.
- **2nd Advance Estimates** – It is released by the **end of February every year**.
- **Provisional Estimates** – It is released by the **end of May**.
- **Revised Estimates** – The GDP estimates continue to be **revised and in the coming 3 years**, the 1st, 2nd, and 3rd Revised Estimates of this year's GDP will be released.
- **Actuals** – It is the **final number of GDP**.

Union Budget is presented on February 1 every financial year. In the year of Lok Sabha elections like in 2024, a full-fledged Union Budget will not be presented.



11.2 Universal Basic Income (UBI)

Why in news?

Universal Basic Income (UBI) can strengthen welfare architecture and unlock the nation's latent demographic potential.

What is Universal Basic Income (UBI)?

- **UBI** - It is an income support mechanism typically intended to reach all or a very large portion of the population regardless of their earnings or employment status.
- **Objective**- To provide enough to cover the basic cost of living and provide financial security.
- **Principles** – The fundamental principles of UBI include
 - Universal
 - Unconditional
 - Periodic
 - Cash payment
 - Individual

A universal basic income provides a monthly stipend that would ensure that a person would be above the poverty line without any other source of income.

What is the significance of UBI?

- **Resource management**- Universality and unconditionality would mean that the government does not need to spend time and resources in assessing eligibility of the potential beneficiaries.

- **Poverty reduction-** It would bring everyone's income above the poverty line, giving people enough money for their basic needs and necessities.

- Basic income pilot in Hyderabad, WorkFREE, has seen increased health insurance coverage among participants.

- **Fights unemployment-** It would act as security net for the millions of people who will be left jobless by the tech revolution.

- It can be used to promote self-employment among the citizens and increase the employment opportunities in the economy.

- **Promote entrepreneurship-** It would cover the risks involved in starting new business and foster the entrepreneurial ideas in the country.

- **Social empowerment-** It guarantees an income for non-working parents and caregivers, thus empowering important unpaid roles, especially for women.

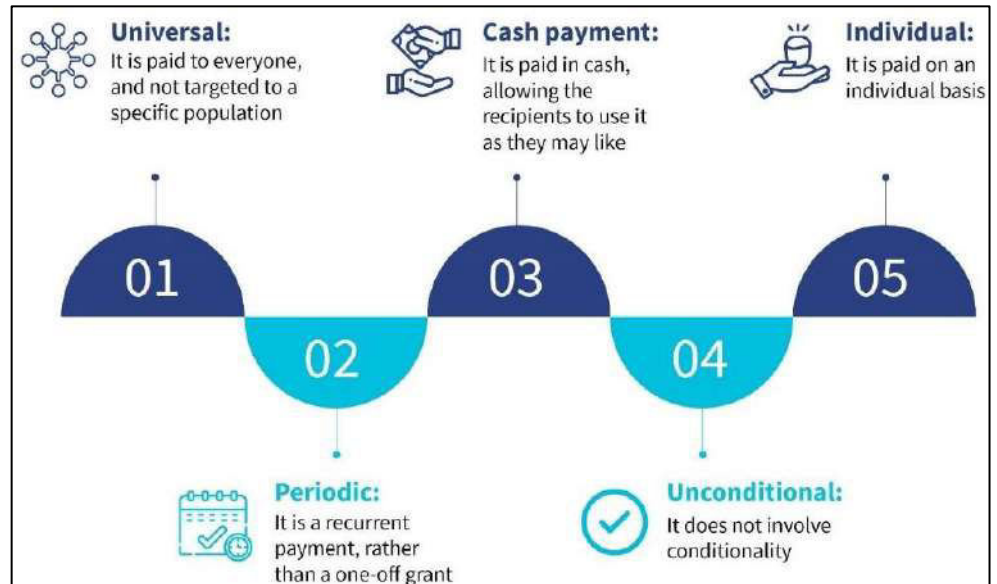
- **Impetus to social capital-** Basic income programmes from around the world show evidence of people being able to invest in better housing, healthcare, education, savings etc.,

- SEWA pilot project in Maharashtra revealed that the cash transfers helped increase school enrollments from 69.6% to 70.6%.

- **Crisis recovery-** Basic income can help people cope with crises like automation, unemployment, climate change, pandemics and inequality.

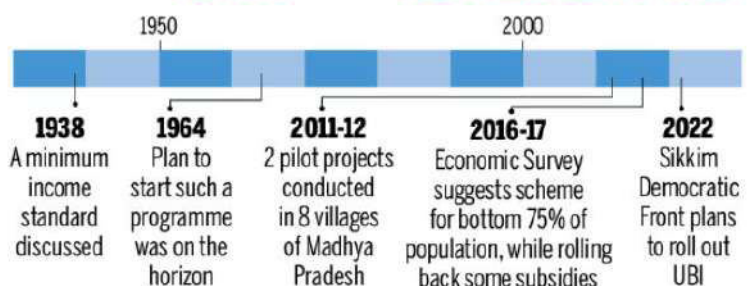
What are the challenges in providing UBI?

- **Fiscal feasibility-** An UBI that covers the entire population would require huge amount of public spending estimated at 5-10% of GDP.
- **Economic burden-** The fund for UBI would be generated by raising taxes, cutting other public expenditures, or increasing fiscal deficit, thus having both political and economic implications.
- **Labour market distortion-** UBI is independent of work status which might reduce the motivation and incentive for work, education and skill development.



A minimum income guarantee is at the discretion of the government of the day - it can be equal, more or less than the poverty line expenditure.

INDIA'S TRYST WITH INCOME SUPPORT



UBI ACROSS THE WORLD

US Alaska Permanent Fund distributes part of the state's oil revenues to all residents on per-capita basis Stockton, California Secured funding from private non-profits to launch a small project with about 100 participants receiving \$500 a month for about 18 months Finland Scheme started in 2017 to pay 2,000 jobless people assistance of €560 a month stopped last year	Kenya Largest experiment underway with some villages receiving \$0.50-1 a day Brazil Has run experiments Canada Ontario plans to test a basic income scheme	France A senate committee has recommended an experiment UK & Germany Studies have been conducted Scotland Committed funds to conduct an experiment Barcelona, British Columbia Plans to start experiments Switzerland Plan to give everyone right to basic income defeated in 2016
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- **Dependency-** UBI would create a culture of dependency which may lead to mindless expenditures and add to debt.
- **Behavioural effects-** UBI might increase the consumption of alcohol, tobacco and other harmful substances, especially among men, who might misuse the money intended for the household.
- **Social acceptability-** It might also challenge the existing norms and values of work, merit, responsibility and solidarity, and create social divisions and conflicts.

The Economic Survey of India suggested a UBI of Rs 7,620 per annum.

What lies ahead?

- The challenges in UBI implementation must be tackled by designing UBI that is affordable, feasible, efficient, equitable and acceptable.
- Robust support systems to complement UBI, such as universal healthcare and education, will ensure better utilisation of the money.

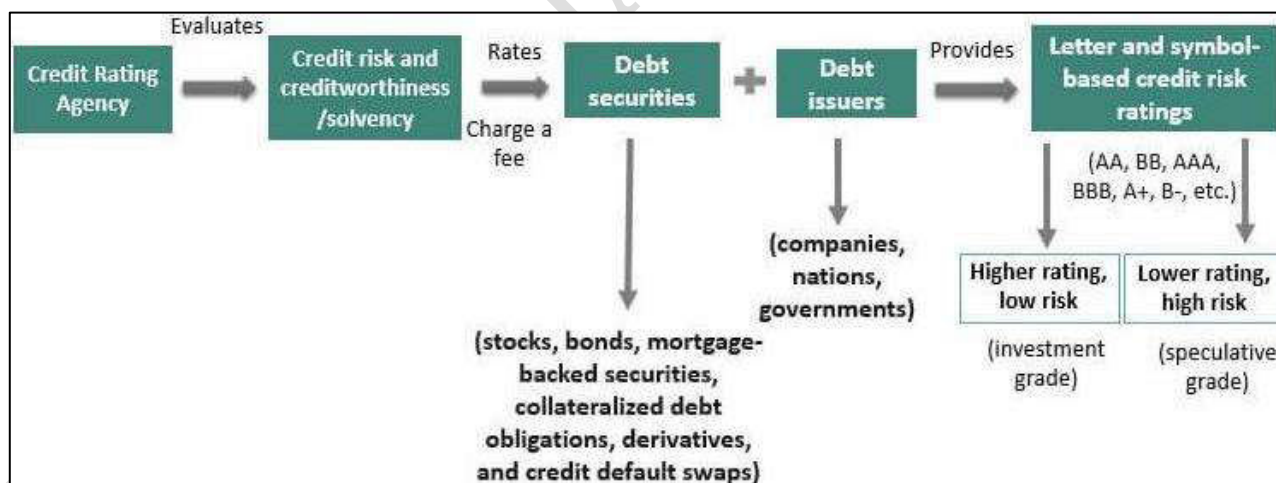
11.3 India's Review of Credit Rating Agencies

Why in news?

Recently, India released a document titled 'Re-examining Narratives: A Collection of Essays' to present alternate perspectives on economic policy that have long-term implications for India's growth and development priorities.

What are credit rating agencies?

- **Credit Rating Agencies (CRA)** – According to IMF, they are *private companies that assess credit risk of borrowers that seeks loans and issue fixed-income securities, such as bonds.*
- **Beneficiary** – Individuals, corporation, State or provincial authority, or sovereign government.
- Prospective borrowers often must obtain a credit rating before they try to raise money in capital markets.
- **Lending parameters** – Ratings contributes to the determination of the interest rate, or price, the borrower must pay for financing.
- In India, CRAs are regulated by **SEBI (Credit Rating Agencies) Regulations, 1999** of the Securities and Exchange Board of India Act, 1992.



What is sovereign credit rating?

- An independent assessment of the *creditworthiness of a country or sovereign entity.*
- **Determining factors**
 - Per capita income
 - GDP growth
 - Rate of inflation
 - Short-term external debt as a % of GDP
 - Economic development
 - History of defaults

6 Credit Rating Agencies (CRA) registered under SEBI are CRISIL, ICRA, CARE, SMERA, Fitch India and Brickwork Ratings.

- Political stability.

- By allowing external credit rating agencies to review its economy, a country shows that it is willing to make its financial information public to investors.

Why do sovereign ratings matter?

- **Marker for investors** – They provide about the creditworthiness of governments around the world and their ability and willingness to pay back debt.
- **Impact borrowing capacity** – A poor sovereign rating can inhibit the country's ability to borrow money from rich investors.
- Governments with lower sovereign ratings have to pay higher interest rates when they borrow.
- **Influence businesses** – If the sovereign rating of a country's government is low, the businesses of that country end up with even higher interest rate when they borrow from global investors.
- **Supports development** – A good rating can make developing countries (which lack capital) easier to become more productive and remove mass poverty.

Which are the main rating agencies?

- Sovereign credit ratings predate the Bretton Woods institutions, i.e., the World Bank and the International Monetary Fund.
- **3 main agencies** – **Moody's, Standard & Poor's and Fitch** are globally recognised credit rating agencies.
- **Moody's is the oldest** which was established in 1900 and issued its 1st sovereign ratings just before World War I.
- In 1920s, Poor's Publishing and Standard Statistics, the predecessor of S&P, started rating government bonds.
- While the US and European countries have enjoyed a good record, ratings have been *affected by global events*.
 - For instance, sovereign defaults spiked during the 1930s Depression, and most ratings were downgraded.

While S&P and Fitch rate India at BBB, Moody's rates the South Asian country at Baa3, which indicates the lowest possible investment grade, albeit with a stable outlook.

To know more about CRA, click [here](#)

What is the government's criticism?

- The Finance Ministry has pointed out **issues with the methodologies** used by the rating agencies.
- **External influences** - According to the document from 'Fitch', the rating agency takes comfort from high levels of foreign ownership in the banking sector
- **Bias over public banks** – It discriminates developing countries where the banking sector is primarily run by the public sector.
- It also ignores the public banks' welfare and development functions including their role in promoting financial inclusion.
- **Opacity** – Non transparent manner of selection of the experts consulted for the rating assessments.
- **Weightage issues** – Agencies do not convey clearly the assigned weights for each parameter considered.
- Composite governance indicator (weight of 21.4) is only based on the *World Bank's Worldwide Governance Indicators (WGI)* that uses indices such as freedom of expression, freedom of media, rule of law, corruption, quality of regulation, etc. but does not capture hard economic data.

11.4 Revisit Tax Contributions by State

Why in news?

Union tax revenue among States is distributed by the Finance Commission based on equity and efficiency principles.

What is the issue?

- The Finance Commission recommends a distribution formula specifying each State's share in the part of the Union tax revenue assigned to States.
- Such distribution formulas have a few weighted determinants.

The Finance Commission is a constitutional body that was established under Article 280 of the Indian Constitution.

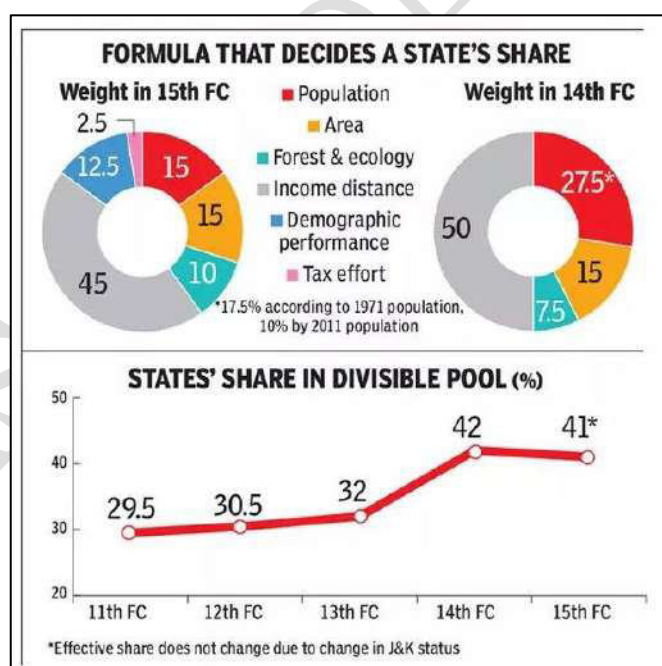
- Some States have been arguing that their contribution to the Union tax revenue have been higher and, therefore, they rightfully have *higher shares* in the Union tax revenue.
- In the first eight Finance Commissions, tax contribution with very little weight was a determinant in the distribution formula.
- Since the 10th Finance Commission, this **tax contribution was dropped** from the distribution formula.

Why tax contribution is not a good indicator?

- Income origin-** A person may pay income tax from one State though the income earning is from other States.
- Low weightage-** Successive Finance Commissions have assigned 10% to 20% weight to income tax revenue collection/assessment in the distribution formula for income tax revenue because collection is not a good indicator of contribution.
- Lack of data-** Due to the unavailability of proper consumption statistics, contribution was never a determinant in the distribution formula for Union excise duties.

What is the role of Finance Commission in tax revenue transfers?

- State share in Union tax revenue-** Finance Commission devises a distribution formula based on the principles of equity and efficiency.
 - Equity-** The revenue-scarce States and States with higher expenditures get larger shares of Union tax revenue than others.
 - Efficiency-** Reward the States that are efficient in collecting revenue and rationalising spending.
- Since the 10th Finance Commission, the Commission has recommended a single distribution formula for both income tax and Union excise duties. Thus, the Finance Commissions have always favoured assigning more than 75% weight to equity indicators.
- Tax contribution-** It is an efficiency indicator because a State's level of development and economic structure decides its tax contribution.
- Population-** It is a chief indicator of the expenditure needs of the State, was given 80% to 90% weight in the first seven Finance Commissions as far as income tax distribution was concerned.
- Union Excise duties-** The entire distribution was based on population or other indicators of expenditure needs such as area, per capita income etc.,
- Pooled Central tax-** It included tax effort and fiscal discipline as efficiency indicators with a weight of 15%.
- Tax effort-** It is broadly defined as the ratio of own revenue of a State to its Gross Domestic Product.
- Fiscal discipline-** It is the proportion of own revenue to the revenue expenditure of a State.



To know about the report of 15th Finance Commission, click [here](#).

How the tax contribution can be included in the distribution formula?

- GST** - It is a consumption-based destination tax, a good measure of tax contribution & efficiency of States.
- GST is a unified tax system which reflects the accurate tax base of each State and is not affected by discretionary policies.
- Petroleum consumption-** It is another measure of tax contribution and efficiency, as it captures the relative share of Union excise and customs duties on petroleum products paid by each State.
- Both the GST and petroleum consumption indicate the relative differences in the incomes of the residents of each State, as consumption is a function of income.
- Recommendation to 16th Finance Commission-** As both indicators account for large share of States' share in the Central tax revenue, they can be included in the distribution formula with a weightage of at least 33%.

12. AGRICULTURE

12.1 Sustainability of MSP

Why in News?

As the Lok Sabha elections approach in 2024, there could be a clamour for parties to include “legal guarantee for MSP” in their manifestos.

Income Support to Farmers

- **Income support** – It means transferring a fixed sum of money annually into farmers’ bank accounts.
- **Aim** – To reward farmers for delivering public goods and to function as a safety net and make farming more profitable.
- To assist in the production of safe, healthy and affordable food and to guarantee food security.
- **Existing Schemes in India**
 - Centre’s **PM-Kisan Samman Nidhi** - Per-farmer basis
 - Telangana government’s **Rythu Bandhu** – Per-acre basis.
- **Advantages** – Direct income support schemes aren’t market distorting and they benefit all farmers, irrespective of which crop they grow in whatever quantity, and sell to whomsoever at any price.
- **Limitations** – Paying everyone the same money doesn’t incentivise the real producing farmer, who invests more resources, time, and effort in the field.

What is Minimum Support Price (MSP)?

- **MSP** – It is the price at which the **government is obligated to purchase the produce** from farmers in the event that the market price falls below this threshold.
- **Concept** – It was 1st proposed throughout the 1960s as a market intervention to insure agricultural producers against any sharp fall in farm prices.
- **Need** - Farmers for *most part operate in buyer’s market* and mostly crops are harvested and marketed in bulk, so sudden increase relative to demand may lead to *fall in prices and lesser income*.
- While their *crops are sold wholesale, they pay retail prices* for other consumables like seeds, pesticides and tractors.
- **Coverage – 22 crops** (Kharif, Rabi and commercial crops)
- It includes cereals (7), pulses (5), oilseeds (7), raw cotton, raw jute and copra.
- **Announcement** – At the *beginning of the sowing season*.
- **Price value** – On the basis of the recommendations of the **Commission for Agricultural Costs and Prices (CACP)** and to be **approved by Cabinet Committee on Economic Affairs (CCEA)**.
- **Factors considered before fixing the price**
 - Demand and supply of a commodity
 - Cost of production
 - Market price trends (both domestic and international)

MSP Crops		
Kharif Crops	Rabi Crops	Other Crops
1. Paddy		
2. Jowar		
1. Bajra		
2. Maize	1. Wheat	
3. Ragi	2. Barley	
4. Tur (Arhar)	3. Gram	
5. Moong	4. Masur (Lentil)	1. Jute
6. Urad	5. Rapeseed and Mustard	2. De-Husked Coconut
7. Cotton	6. Safflower	3. Copra
8. Groundnut	7. Toria	
9. Sunflower Seed		
10. Soyabean		
11. Sesamum		
12. Nigerseed		
*MSP for Toria and De-husked coconut are fixed on the basis of MSPs of rapeseed & mustard and copra respectively		

- Inter-crop price parity
- Terms of trade between agriculture and non-agriculture (ratio of prices of farm inputs and farm outputs)
- A minimum of 50% as the margin over the cost of production
- Likely implications of an MSP on consumers

Fair and Remunerative Price (FRP) is given for sugarcane.

- **Cost provided** – The **MS Swaminathan Commission** had recommended **C2+50%** but the government is providing **A2+FL+50%**.
- **Calculation of Cost of Production**
 - **A2** – Actual cost of farming including seeds, fertilisers and hired labour.
 - **A2+FL** – Includes value of unpaid labour of family workers in addition to A2
 - **C2** – Includes the cost of land rentals or interest on invested capital in addition to A2+FL

What are the methods through which MSP can be guaranteed?

- **Forcing buyers to pay MSP** – Already, sugar mills are required, by law, to pay cane growers a “fair and remunerative” or “state advised” price within 14 days of purchase.
- But this risks implementation hurdles.
- **Buying by government agencies on entirety** – Promoting government agencies to buy the entire marketable produce of farmers offered at MSP.
- But this is unsustainable, both physically and fiscally.
- **Price deficiency payments (PDP)** – It entails the [government to pay farmers the difference between the market price and MSP](#), if the former is lower.

PDP was tried out 1st in Madhya Pradesh through a Bhavantar Bhugtan Yojana. Haryana's PDP scheme is called as Bhavantar Bharpai Yojana (BBY)

What is the road ahead?

- **MSP for more crops** – Madhya Pradesh and Haryana have demonstrated the feasibility of delivering MSP to farmers in crops other than rice, wheat, and sugarcane through Agricultural Produce Market Committee (APMC) infrastructure and systems for farmer registration.
- **Implementing a nationwide PDP scheme** – Providing 50% central funding can perhaps incentivise other states to follow the examples of Madhya Pradesh and Haryana.
- **Rationalising the eligibility** – Price assurance can be given to those farmers who depend on agriculture as primary income and as their incidental livelihood source as they are more exposed to both price and production risks.

12.2 Nutritional Insecurity - The Silent Famine

Why in news?

A study led by Indian Council of Agricultural Research (ICAR) scientists has found the grains that we eat have lost food value and are accumulating toxins that would worsen India's growing burden of non-communicable diseases (NCDs) by 2040.

What are the key findings of the study?

- [The Green Revolution](#) has helped India achieve food security, but by compromising its nutritional security.
- **Nutrient loss** – During the Green Revolution, the traditional varieties or landraces were crossed to make the new varieties, leading to the loss of the trait of taking more nutrient by the grain.
 - Rice and wheat, which meet over 50% of the daily energy requirements of people in India, have lost up to 45% of their food value in the past 50 years or so.
- **Toxin accumulation** – Due to continuous genetic tampering under the modern breeding programme, the plants have lost their natural evolutionary defence mechanisms against toxicants.
 - For instance, in the past 50 years, the concentration of arsenic, a toxic element, in rice has increased by 1,493%.

Green revolution refers to the large increase in production of food grains resulting from the use of high yielding variety (HYV) seeds especially for wheat and rice.

What are the impacts of nutrient loss and accumulating toxins?

- The depleted concentration of these essential nutrients in the staple grains could result in **higher prevalence of diseases** related to the neurological, reproductive and musculoskeletal systems.
- Oral **ingestion of metal toxicants**, such as arsenic, chromium, barium and strontium have toxic effects like chronic respiratory diseases, cardiovascular diseases, hyperkeratosis, renal toxicity and impaired bone calcification.
- They also put the Indian population at a higher risk of **nutritional insecurity**.

Nutrition security refers to the condition where all people have consistent and equitable access to healthy, safe, affordable foods essential to optimal health and well-being.

Health Condition of Indians

- An Indian Council of Medical Research (ICMR) report indicates a 25% **rise in NCDs** among the Indian population from 1990 to 2016.
- Estimates show that India is home to one-third of the 2 billion global population suffering from **micronutrient deficiency**.
- Though the **NFHS report** show a decline in **child stunting** between 2015-16 and 2019-21, the rate is still significantly high at 35% among children under 5 years of age.

What efforts were taken to promote nutritional security?

- So far, institutes under ICAR have developed 142 **biofortified varieties**.
 - During the past 6 years, about 10 million ha, or 6% of the country's total area under farming, has been brought under biofortified varieties.
- A few scientists are also experimenting with **agronomic biofortification**, which involves using micronutrients as fertiliser or spraying it directly on the leaves.
- Schemes for ensuring nutrition security includes
 - National Food Security Act, 2013** that anchors Targeted Public Distribution System (TPDS)
 - PM POSHAN scheme** (earlier known as Mid-Day Meals scheme)
 - Integrated Child Development Services (ICDS)**

Bio-fortification - Process by which the nutrient density of food crops is increased through conventional plant breeding, improved agronomic practices or modern biotechnology without sacrificing any characteristic that is preferred by consumers/ farmers.

12.3 Decontrolling NBS Fertilizers

Why in news?

The Centre has introduced price capping formula for phosphatic and potassic (P&K) fertilizers under Nutrient Based Subsidy scheme with retrospective effect from April 1, 2023, through guidelines issued under the Essential Commodity Act.

Nutrient Based Subsidy (NBS) Scheme

- Launch year-** 2010
- Aim-** To encourage soil-balanced fertilization and increase agricultural productivity
- It provides subsidies for non-urea-based fertilizers based on the nutrients (N, P, K, and S) they contain.
- Administration-** Department of Fertilizer, Ministry of Chemicals and Fertilizers.
- Coverage-** Phosphatic and Potassic (P&K) Fertilizers.
- A fixed amount of subsidy is decided on annual basis, is provided on subsidised P&K fertilizers depending on their nutrient content.

- MRP is fixed by fertilizer companies as per market dynamics at reasonable level which is monitored by the Government
- **Objectives-**
 - To promote balanced use of fertilizers.
 - To reduce subsidy burden on the Government.
 - To improve availability of fertilizers to farmers.
 - To encourage competition among fertilizer companies
- **Features-** It considers the domestic and international cost of fertilizers, the country's inventory levels, and the currency exchange rate.
- It provides additional subsidies for fertilizers that are enriched with secondary and micronutrients like zinc and molybdenum (Mo).
- **New guidelines-** The MRPs are supposed to be market-determined and set by the individual companies selling them.
- The government merely pays a fixed per-tonne subsidy on each of these fertilisers, linked to their nutrient content or specific percentage of nitrogen (N), phosphorous (P), potassium (K) and sulphur (S).
- But the Department of Fertilisers has issued detailed guidelines for the evaluation of “reasonableness” of the MRPs for all non-urea fertilisers covered under NBS.

What is the recent guidelines released by Department of Fertilizers?

- The Centre has imposed indirect MRP controls on non-urea fertiliser by capping the profits that companies can earn from their sales.
- **Guidelines-** It is released for the evaluation of reasonableness of the MRPs for all non-urea fertilizers, based on their cost of production/imports, overheads and interest charges.
- **Effective-** It will be launched retrospectively from April 1, 2023.
- **Category-** The rules are based on the category of the companies, whether they import, manufacture or produce both final fertilisers and the raw materials used to make them.
- **New rules aim-** To ensure that the MRPs of these fertilisers are reasonable and reflect the cost of production or import, overheads, and interest charges
- **Refund of unreasonable profits-** Companies earning unreasonable profit in a financial year will have to refund the amount to the Department of Fertilizers by October 10 of the fiscal year.
- **Penalty-** If they fail to refund the unreasonable profit within the stipulated time limit then they should pay 12% interest along with the refund amount.
- **Condition-** The unreasonable profits would also get adjusted against subsequent fertiliser subsidy payments by the government.
- **Calculation of profit margin-** It is calculated as a % of the MRP of the fertilizers, excluding the Goods and Services Tax (GST). The rules allow profit margin for non-urea fertilizers such as di-ammonium phosphate (DAP) and muriate of potash (MoP)
- **Self-assessment-** The fertilizer companies have to self-assess unreasonable profits based on the cost auditor's report and audited cost data approved by their board of directors.
- **Audit Committee-** It will be set by companies and cooperatives in NBS under Companies Act, 2013 to review the cost auditor's report, this will exempt single sugar phosphate and potash derived from molasses units.
- **Norms for auditor-** The auditor will ensure that the companies have not used any other subsidized fertilizers or earned any profit from self-made intermediaries in the production of P&K fertilizers¹.
- The auditor will certify that the subsidy claims and production/import figures are consistent with the NBS policy and the Integrated Fertilizer Management System (IFMS) online system

Fertilizer subsidies in India currently account for the 2nd largest Government transfer, with a yearly estimated outlay of over Rs. 70,000 Crore.

Category	Allowed profit margin
Importers	8%
Manufacturers	10%
Integrated manufacturers	12%

- The audit report will include the details of the imported goods, any new or expanded plants, the plant capacity utilization, and the total consumption of raw materials and intermediates in the domestic production of P&K fertilizers.
- **Finalise report-** The Department of Fertilizer will then scrutinise and finalise a report on unreasonable profits earned, if any, to be recovered from the companies.
- In case of non-submission of the report and data within deadline, further subsidy payment to the company will be stopped and a penalty of 1,000 rupees per day would be charged from October 11 till it is submitted.

Integrated Fertilizer Management System

- **Launch year-**2016.
- **About-** It is a comprehensive, all-inclusive system covering all functionalities in the fertilizer supply chain.
- **Direct Benefit Transfer in Fertilizer-** It is launched for better monitoring of fertilizers sale transactions across the country by capturing the fertilizer sales from retailers to farmers through Aadhaar enabled PoS devices and online subsidy payment to companies on weekly basis and software solution was enhanced accordingly.
- **Benefits-**
 - Real time status on fertilizer stock availability across the country at all stock points.
 - Effective monitoring of fertilizer movement in fertilizer supply chain to ensure receipt of subsidised fertilizers to the intended beneficiary.
 - Effective monitoring of fertilizer availability in accordance with the state-wise monthly fertilizer requirement.
 - Authentic Fertilizer Dealer database.

13. ENVIRONMENT

13.1 Forest Cover Targets

Why in News?

A recent study in the Nature Geoscience journal showed that with increased tree plantations, there was a decline of almost 38% in water availability in some river basins globally.

What is Forest Cover?

- **Definitions**
 - **Forest Cover** – FSI defines it as ‘all lands of a hectare or more with tree patches with canopy density of more than 10% and it covers all lands, irrespective of legal ownership and land use.
 - **Recorded forest area** – It includes only those areas recorded as **forests in government records** and includes pristine forests.
 - **Tree cover** – MoEF&CC defines it as ‘tree patches *outside recorded forest areas* exclusive of forest cover and less than the minimum mappable area of 1 hectare’.
- **Assessment** – The **Forest Survey of India (FSI)** has been mapping India's forest cover since the early 1980s, even though it only started publishing its biennial State of Forest reports (ISFR) in 1987.
- Based on internationally adopted norms of classification, forests are broadly classified into different classes.
- **India's Target** – According to the National Forest Policy of India, the ideal percentage of total geographical area under forest should be **at least 33%** to maintain ecological stability.

According to 17th ISFR (2021), India currently covers just 24.62% of the country's land with forest cover and is shrinking rapidly.

Class	Description
Very Dense Forest	Tree canopy density > 70 per cent
Moderately Dense Forest	Tree canopy density > 40 per cent
Open Forest	Tree canopy density > 10 per cent
Scrub	Canopy density < 10 per cent
Non-forest	All other land and water

Tropical dry forest biome in India

- **Spread** - Over three-fifths of India falls under this category.
- **Geography**- From the south of the Shivaliks in north India to the Aravali range in the northwest, and down till the Eastern Ghats of Tamil Nadu.
- **Tree cover**-It is generally sparse (10-40% canopy cover and more of open forest, scrub and grasslands).
- **Water Conditions** -Receives less than 1,000 millimetres of annual rainfall and is drought-prone.
- **Significance**-A large rural population depends on these landscapes for cattle grazing.
- It is also an important habitat for endangered fauna like wolves, striped hyena and blackbuck.

Why forest cover targets needs to be revised?

- **No scientific basis** – The 33% forest cover target was 1st proposed in the National Forest Policy 1952 and it has not been revised.
- There is also no basis for the 26 million hectares target under the **2011 Bonn Challenge** that India has set to achieve by 2030.
- **Issues with methodology** – Sufficient tree cover is needed on the ground to detect a forest in a 30 by 30-pixel satellite image thus it necessitates more trees to be planted in a dense manner, compared to the natural 10-40% canopy cover.
- Only fast-growing trees like teak, eucalyptus and vegetation like bamboo can grow quickly enough to be picked up in satellite images.

According to FSI, between 2006 and 2015, Andhra Pradesh and Telangana collectively added over 346,400 hectares to their forest cover. Telangana has schemes like Haritha Haram.

Tree Planting

<ul style="list-style-type: none"> • Factors driving tree planting <ul style="list-style-type: none"> ○ India's National Forest Policy ○ National forest cover targets ○ International restoration commitments ○ Central government schemes like the Green India Mission ○ The importance given to forest cover in devolution of funds to states by the Finance Commission 	<ul style="list-style-type: none"> • Negative effects <ul style="list-style-type: none"> ○ Loss of grassland and scrub ecosystems rich in biodiversity ○ Loss of grazing land available for pastoral communities ○ Affects the water security of rural communities in the dry forest region
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What lies ahead?

- **Restoration** – Restoring degraded land to its original state of grasslands or scrub vegetation with native trees will be more rewarding than creating monoculture plantations.
- **Revising the targets** – It is important to revise the target forest cover under the National Forest Policy.
- **Promote conservation** – Provide incentives for conserving grasslands and other open ecosystems with low tree cover, which are of high importance and often misclassified as 'wasteland'.
- **Expand indicators** - The restoration programmes and monitoring should not entirely depend on satellite imagery, as tree cover is not the only good indicator of health of an ecosystem.
- **Bottom-up approach** – A top-down policy approach will dissuade the States from taking up ill-advised tree planting schemes that could be detrimental in the long term.
- **Tree plantation in appropriate areas** – Ecological balance cannot be achieved by [compensating for forest loss](#) elsewhere by tree plantations in these dry forest regions.

The 15th Finance Commission recognised that forest canopy cover across India varies and weightage given for devolution of funds to the States should be according to different canopy density classes.

14. SCIENCE & TECHNOLOGY

14.1 AI Copyright Lawsuit

Why in news?

The New York Times (NYT) filed a lawsuit against OpenAI and Microsoft for using its copyrighted work to train and generate Artificial Intelligence products.

Why NYT filed allegation against AI firms?

- **Use of copyrighted materials-** NYT claims that Open AI and Microsoft are free-riding on its journalism, stealing its audience.
- It argues that Open AI and Microsoft's use is not transformative or fair, and that it harms the potential market for its work.
- They use NYT's copies to train their large language models (LLMs), including [ChatGPT](#) and **Copilot**.
- **Loss of revenue-** AI firms are reproducing articles by passing paywalls using a browsing plugin.
- **Loss of autonomy-** The copyrighted news articles, in-depth investigations, opinions etc., are being used unlawfully to create AI products that jeopardize its ability to deliver that service.
- **Unfair competition-** Chatbots like ChatGPT and Bing Chat could harm NYT's business by using its content to create competing products that discourage users from visiting its website.
- **Misinformation-** The problem with LLMs is that they produce false or inaccurate information by fabricating the content which is called as hallucination in AI.
- **Lack of market-** Misinformation harms the reputation and trustworthiness of the newspaper which undermines the quality and value of journalism, as it makes it harder for people to distinguish between true and false information.

To know about copyright infringement click [here](#)

Generative AI

- It refers to the capability of AI-enabled machines to use existing text, audio files, or images to create new content.
- It is powered by foundation models (large AI models) that can multi-task and perform out-of-the-box tasks, including summarization, Question and Answer etc.,
- It produces new outputs that are similar to the data it was trained on.
- The repetitive processes automated in generative AI includes digital image correction and digital audio correction.

What is OpenAI's legal stance?

- **Fair use-** They may claim that using NYT's articles to train their AI products is a fair use of copyrighted material.
- **Fair use factors-** Fair use depends on four factors, such as
 - Purpose and character of use,
 - Nature of the work,
 - The amount used, and
 - The effect on the market.
- **Transformative use-** Purpose and character of use factor is crucial as it considers whether OpenAI's use is transformative, meaning it adds something new or different to the original work.
- However, it may be challenged by the fact the LLM does not retain the original data, but only learns from it.

Steps taken by India for copyright infringement

- **Copyright Act, 1957-** Protects original literary, dramatic, musical, artistic works and cinematograph films from unauthorized uses.

- The Act offers remedies for copyright infringement (*civil or criminal* in nature), depending on the severity and intent of the infringement.
- It includes injunctions to stop further infringement, monetary damages to compensate the copyright owner, and an account of profits to ensure that the infringer does not benefit financially from their wrongful actions.
- It involves penalties such as imprisonment and fines, primarily for cases of intentional and commercial infringement.
- **Copyright (Amendment) Rules 2021**- It aims to bring the copyrights in line with other relevant laws and ensures accountability and transparency in the collection and distribution of royalties.
- Copyright Act 1957 specifies exception with respect to computer programme namely
 - Making copies for protection
 - Obtaining essential information
 - Testing and studying
 - Non-commercial copying

What lies ahead?

- The complaint is the **1st AI copyright lawsuit** within the news ecosystem, arguing that the generative AI models threaten the publication's business model and compromise the credibility.
- The lawsuit could have significant impact on the future of generative AI and intellectual property, as it raises questions about the value and meaning of creativity and art in the age of AI.
- A new legal framework is required as existing laws may not adequately address the issues of authorship and ownership of works created by AI, which uses copyrighted material as training data.

14.2 Regulation of Virtual Digital Asset by FIU-IND

Why in News?

Recently, the Financial Intelligence Unit India (FIU IND) issued show-cause notices to 9 offshore virtual digital asset service providers (VDA SPs) like Bitfinex and MEXC Global, among others.

What is FIU-IND?

- **Established in** – 2004 under the Finance Ministry.
- **Aim** – To act as a nodal agency for receiving, analysing and disseminating information relating to suspected financial transactions
- **Function** – It receives reports from private and public sector banks every month which are
 - Cash transaction reports (CTRs)
 - Suspicious transaction reports (STRs)
 - Cross border wire transfer reports
- It is based on the mandate of [Prevention of Money Laundering Act, 2002 \(PMLA\)](#).
- **Cash transaction reports** – It is **mandatory** for banks in India to furnish a monthly CTR to the FIU on
 - All transactions over Rs. 10 lakh or its equivalent in foreign currency or
 - A series of integrally connected transactions that add up to more than Rs. 10 lakh or its equivalent in foreign currency

What are Virtual Digital Assets (VDA)?

- India's Union Budget for 2022-23 for the 1st time defined [VDA](#) in the newly-inserted clause (47A) under Section 2 of the Income Tax Act, 1961.
- **VDA** – It refers to
 - any information or code or number or token
 - generated through cryptographic means

According to the FATF, a virtual asset service provider (VASp) can be any natural or legal person who conducts activities like carrying out transfer of virtual assets, administer them, or oversee their sale by an issuer's office.

- providing a digital representation of value exchanged with the promise of having inherent value
- or functions as a store of value or a unit of account
- can be transferred, stored or traded electronically
- Thus it includes cryptocurrencies, DeFi (decentralised finance) and non-fungible tokens (NFTs).
- **Indian currency and foreign currency** as defined under the Foreign Exchange Management Act, 1999, have been excluded from the ambit of VDAs.
- **Tax in India – 30% income tax on gains** made from cryptocurrencies and also rules regarding **1% tax deducted at source** on cryptocurrency came into effect.
- **Compliance** – Entities dealing in VDAs, crypto exchanges and intermediaries are considered as ‘reporting entity’ under PMLA and thus brought under anti-money laundering/counter financing of terrorism regulations.
- **Obligations** – To verify the identities of on boarded clients, and maintain records of their financial positions and potentially suspicious transactions.
- **Applicability** – To all VDA SPs operating in India irrespective of physical presence.
- The entities though catering to a substantial part of Indian users were not getting registered and coming under the Anti Money Laundering (AML) and Counter Financing of Terrorism Network (CFT) framework’.
- **Significance** – It would ensure lack of anonymity and businesses not encountering multiple hurdles.

Currently, 31 VDA SPs have registered with FIU IND.

What approaches emerge when looking to regulate VDAs?

- The Bureau for International Settlements (BIS), has considered provisions to regulate VDA in its report about financial stability from crypto assets in emerging economies.
- Policy options under consideration are outright ban, containment and regulation.
 - **An outright ban** – It may not prove enforceable because of the pseudo-anonymous nature of crypto markets and there could be a possibility that regulators become non transparent.
 - **Containment** – It would imply controlling the flows between crypto markets and traditional financial systems or limiting their connections.
 - But it would not address the vulnerabilities inherent in the crypto markets and could result in financial stability risks.
 - **Regulation** – The report holds that it must be ensured that benefits of regulating and supervising are greater than the costs involved.
- **Challenges** – Issues for emerging market economies (EMEs) are
 - Defining the (regulatory) authority or entity
 - Defining their scope of regulation
 - Filling in the data gaps to understand the technology and interconnections

Some global regulations of VDA SPs are Dubai Virtual Assets Regulatory Authority (VARA) in Dubai and Markets in Crypto-Assets Regulation (MiCA) in European Union.

Bank of International Settlements (BIS)

- **Established in** – 1930
- **Owned by** – 63 central banks including RBI that account for 95% of the GDP
- **Office** – Head office is in **Basel, Switzerland** and it has 2 representative offices in Hong Kong and Mexico City
- **Mission** – To support central banks' pursuit of monetary and financial stability through international cooperation, and to act as a bank for central banks
- **Basel Committee on Banking Supervision** of BIS provides the Basel norms

14.3 Square Kilometre Array (SKA) Observatory

Why in News?

India had decided to formally join the Square Kilometre Array (SKA) project, an international scientific collaboration working to build the world's largest radio telescope.

What is SKA?

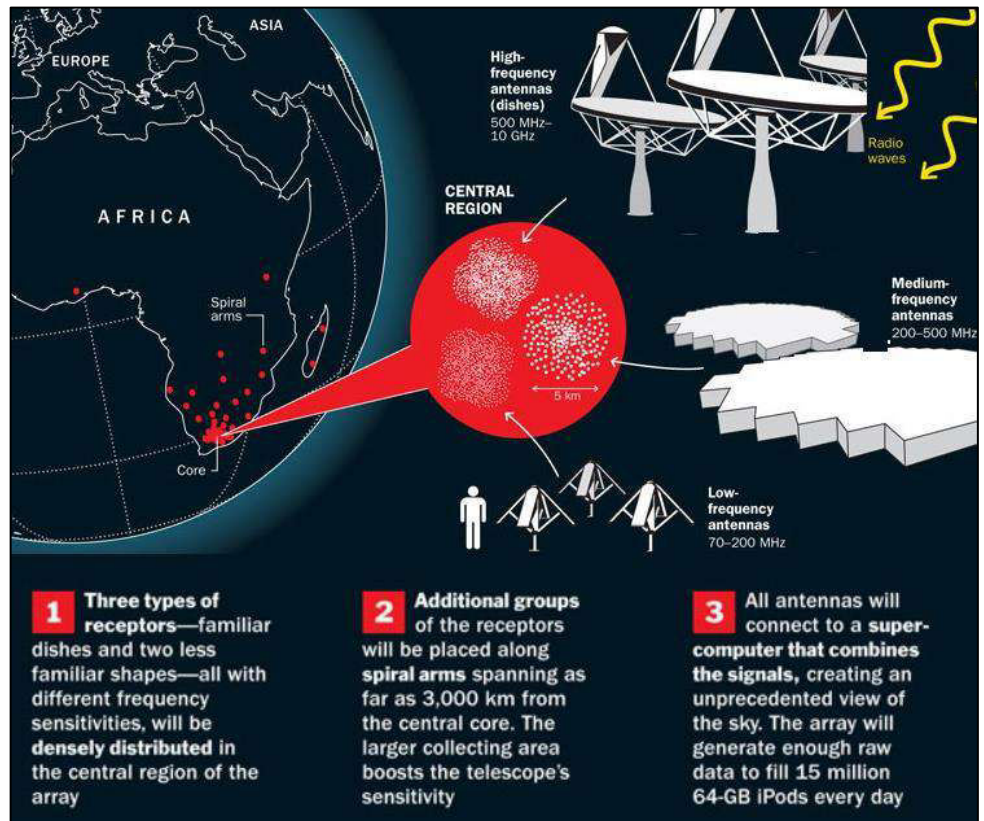
- **SKA** – It will be the **world's biggest and most advanced radio telescope** ever constructed.

- It will not be a single large telescope, but a collection of thousands of dish antennas operating as a single unit.

- **SKA Observatory Convention** – The international treaty that established the facility as an intergovernmental organisation.

- **Objective** – To create **1 square kilometre** of effective area for collecting radio waves using radio telescopes.

- **Mission** – To build and operate cutting-edge radio telescopes to transform our understanding of the Universe, and deliver benefits to society through global collaboration and innovation.



- **Headquarters**– United Kingdom (UK)

- **Implementation** – By installing 1000's of smaller antennas in a specific array design that would make them function like a single radio telescope.

- **Budget** – USD 2.4-billion project

- **Distribution of antennas** – About 200 of them in South Africa and more than 130,000 in Australia.

- **Installation location** – In sparsely populated areas in order to minimize signal interference from undesirable Earth-based sources.

- **Consortium Members** – It includes **16 member countries**, such as Australia, South Africa, Canada, China, India, Japan, and several European nations.

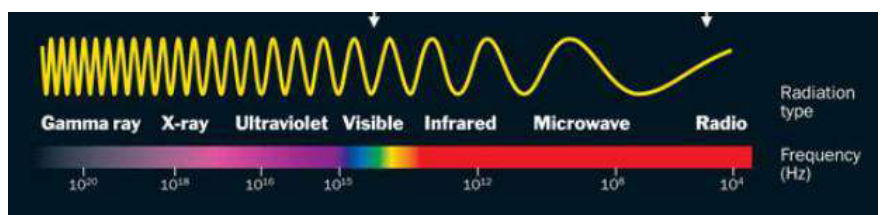
- **Significance** – Once operational, it would be between **5 to 60 times more powerful** than the most advanced existing radio telescopes functioning in comparable frequency ranges.

In SKA Observatory, the South African array will focus on mid-frequency signals, while the Australian telescope will cover low-frequency ranges.

How does it work?

- The SKA telescopes will observe from 50 MHz to 15.4 GHz (with a goal of 24 GHz) in the radio frequency part of the electromagnetic spectrum.

- **Working** – It receive radio waves from space using antennas which are sent through a processing chain that enables the astronomical data ultimately to be turned into an image of the sky.



- **Advantage** – Unlike optical telescopes, radio telescopes can be used even in **cloudy skies**, as the longer wavelengths can pass through clouds unhindered.

- They can **detect invisible hydrogen gas**, the most abundant element in the Universe, which emits in the radio band at 1420 MHz.

- They can also reveal areas of space that may be obscured by cosmic dust, as radio waves are **can travel through these dust clouds**.

What is the role of India in SKA?

- **Indian participation** – India has been involved in the SKA project right from its inception in the 1990s.
- It is being led by Pune-based **National Centre for Radio Astrophysics (NCRA)**.
- **India's contribution** – In design and development of the telescope and the main contribution has come in the development, and operation, of the Telescope Manager, the '**neural network**' or the software that will run the entire facility.
- **Benefits** – Though none of the SKA facilities would be located in India, there are immense science and technology gains to the Indian scientific community.
- It will promote research in radio astronomy where India is already taking leaps through
 - **Giant Meterwave Radio Telescope (GMRT)**, Pune
 - Other similar facilities in Ooty, Nainital and Bengaluru
- It will get preferential allocation of time on the radio telescope, roughly in proportion to their contribution to the project, and only limited time slots would be available through competitive bidding.
- The SKA would work on highest-end technologies and the intellectual properties would be accessible to all the member countries.
- Indian scientists can use SKA for studying concepts relating to the evolution of the early universe and galaxies, neutron star physics, and solar sciences.
- It helps in capacity building and training opportunities.
- **Future plans** – To set up an SKA regional centre in the country that will be part of the global network to process and store data and make it available for the scientific community.

Most existing telescopes operate under an open-use policy which allows research groups from any country to get time on the facility through competitive bidding by making a scientific case.

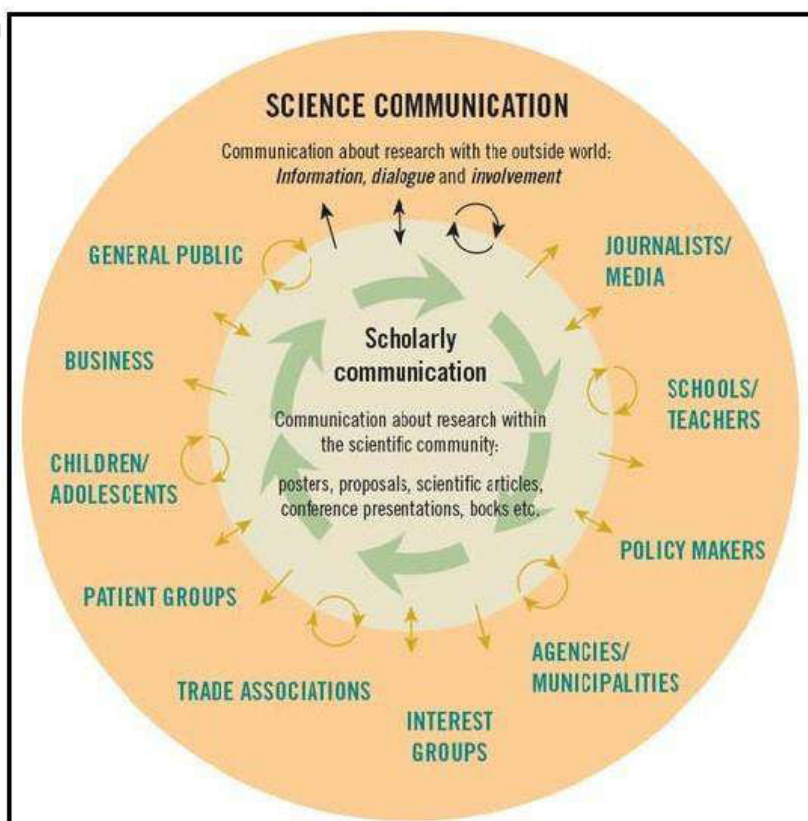
14.4 Science Communication

Why in news?

Science communication in India faces new challenges and possibilities in the present context.

What is Science Communication?

- Science communication is to **communicate and to acquaint the common masses with scientific knowledge** aiming to inculcate scientific temper among its common level.
- It is an umbrella term that also includes the exchange of scientific knowledge, institutional outreach, and public engagement with science.
- It involves all forms of communication around science, scientific work, its outcome, discussions on its ethical, societal, or political impacts.
- It also involves direct conversations with scientists as well as diverse audiences.



How the contemporary science engagement is diverse?

- **Space mission-** It involves a well-defined and largely one-way relay of scientific information, and has the advantage of an inherent visual appeal, aspirational intent, and national sentiment.
 - [Chandrayaan-3](#), India's third lunar mission is an exemplar of the public communication of advanced science.
 - The lander's soft-landing was telecasted on several channels, making it one of the largest demonstrations of a live scientific experiment in India.
- **COVID-19** - The communication of scientific and healthcare-related information became significant which reflected the interdisciplinary effort in containing the pandemic.
 - It intended to promote public compliance with good 'pandemic habits' like physical distancing, masking, and vaccination.
 - Homemade masks manual promoted the use of low-cost and reusable masks during the pandemic.
- The pandemic exposed the challenging situation for science communication in India, with gaps in data reporting, vaccine hesitancy, and infection forecasting
- **Contrasting communication-** The different aspects and outcomes of science communication in a space mission and a pandemic revealed the diverse nature and needs of contemporary science engagement.

Steps taken by India to promote Science Communication

- **Publications and Information Directorate (PID)** - An organisation under Council of Science and Industrial Research (CSIR) established in 1951 for publishing and disseminating scientific information in India.
- **National science magazines-** The PID published magazines to popularize science among masses.
 - **Vigyan Pragati** - In Hindi launched in 1952.
 - **Science Reporter** - In English launched in 1964.
 - **Science Ki Duniya** - In Urdu launched in 1975.
- **Birla Industrial and Technological Museum-** 1st science museum in India, established in Kolkata in 1959 to showcase India's scientific heritage and promote science education among the masses.
- **Article 51 A (h)-** It was a part of the **42nd amendment to the Constitution in 1976**, which added a new section on the fundamental duties of the citizens of India.
- The article states that it is the duty of every citizen to develop a scientific temper, humanism and the spirit of inquiry and reform.
- **National Council for Science and Technology Communication (NCSTC)-** It is a scientific programme established in 1982 during 6th five-year plan.
- **Vigyan Prasar-** It is an autonomous organisation under the Department of Science and Technology, set up in 1989 to popularise science at large which was closed in 2023.
- **CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR)-** It is a new institute that was established in 2021 by merging two existing institutes of CSIR.
- **National science funding agencies-** Department of Science and Technology, Department of Biotechnology, Indian Council of Medical Research (ICMR), and Indian Council of Agricultural Research (ICAR).

What lies ahead?

- **Formal education-** There is a need to expand science communication degree programmes to train and equip science communicators with the skills to address the diverse needs of science communication in India.
- **Inclusive science communication-** There is a need to integrate science communication into scientific process which will develop strategies to communicate science effectively at various levels.
- **Assessment strategies-** India should encourage and assess the practice of science communication among scientists, such as incentives, public engagement, outreach programmes, and translation of research papers.
- **Interdisciplinary approach-** India needs a comprehensive and coordinated plan to communicate scientific solutions to national challenges, such as antimicrobial resistance, air pollution, and energy diversification.
- **Multifaceted approach-** Science communication strategy should involve experts from various fields and sectors, and address the needs and perspectives of different disciplines and groups.

14.5 Voice Cloning

Why in News?

Voice clone fraud has been on the rise in India.

What is voice cloning?

- **AI voice cloning** – It is the process of creating a synthetic replica of a person's voice through machine learning and speech synthesis technology.
- It is called as voice deepfakes or audio deepfakes.
- **Objective** – To achieve a high level of naturalness that sounds exactly like a person's voice.

Usage of Voice Deepfakes

- **Voice assistants** – Creation of personalized voice assistants, chatbots, video game characters, animated film avatars, custom call centre voices, and much more.
- **Language translations** – Meta's SeamlessM4T, can understand nearly 100 languages from speech or text and generate translations in real-time.
- **Protecting original voices** – Apple introduced a voice cloning feature to help people who may be in danger of losing their voice say to a degenerative disease.
- **Creating new songs** – YouTube's Dream Track partners with creators in the U.S. to allow them to create song clips featuring AI vocals with permission from pop stars.
- **AI Voice Scams** – Easy access to AI voice clones also spawned disinformation.
- **Rallying for votes in Election** – A Pakistan based political party used an AI-generated speech from the now imprisoned leader in an attempt to rally for votes virtually.
- **Generating hate speech** – Harry Potter actress Emma Watson voice reading out a portion of the Mein Kampf.

Scenario of AI voice clone scams in India

- **'The Artificial Imposter' Report**– India topped the list with the maximum number of victims.
 - 47% of surveyed Indians have either been a victim or knew someone who had fallen prey to the scam.
 - Scam in India is almost twice the global average of 25%.
- **McAfee Report** – 66% of Indian participants admitted that they would respond to a voice call or a phone call that appeared to be from a friend or family member in urgent need of money.
 - The most effective excuses used by the sender were that they had been robbed (70%) and involved in a car accident (69%).
 - 86% Indians were prone to sharing their voice data online or via voice notes at least once a week.

How are voice clones done?

- It is a complex process that involves audio data, an algorithm to train on the data, and finally fine-tuning your cloned AI voice.
- **Requirement** – AI model will require audio data for the machine learning process to trigger.
- **Ways to share audio data** – Uploading an audio file or recording voice samples in the app.
- The recorded or uploaded audio data is then analyzed by our model to extract various acoustic features, such as pitch, tone, and rhythm.
- **Speech synthesis** – The analysed audio is used to train a speech synthesis model, such as a neural network.
- The model is trained on this data to pick up on the nuances and acoustic features of the user's voice.
- **Speech perfection** – Once the voice is cloned, the user has the option to continue refining the AI voice with various voice augmenting variables such as prosody, phoneme, and emotions.

15. INTERNAL SECURITY

15.1 ULFA Peace Accord

Why in news?

Recently, the pro-talks faction of the United Liberation Front of Asom (ULFA) have signed a historic tripartite peace deal with the Government of India and the State government of Assam.

Who is ULFA?

- **Historical background** – There was an influx of migrants from all over since 19th century into Assam.
- It was further exacerbated by the Partition in 1947 and the subsequent exodus of refugees from the erstwhile-East Pakistan.
- The competition for resources skyrocketed, resulting in a 6-year long mass movement from 1979.
- **ULFA** – United Liberation Front of Assam was born during the anti-foreigner's movement of **1979**.
- **Aim** – To establish a sovereign Assamese nation through an armed struggle against the Indian state.
- **Current leaders** – Arabinda Rajkhowa and Paresh Baruah.
- **Geographical spread** – It still has camps in Myanmar, and previously had camps in both Bangladesh and Bhutan.
- Lying deep in jungles and hilly areas, these camps act as launch pads for cross border operations, as well as shelter after the fact.
- **Links to other insurgents** – Outfits in the Northeast, Myanmar and also with Islamic terror outfits like Al-Qaeda. It also has links to Pakistan's Inter-Services Intelligence (ISI), which has reportedly trained ULFA insurgents in the past.
- **Impact** – For over 44 years, this struggle has been chequered with kidnappings and extortion, executions and bomb blasts, leading to tragic loss of life in Assam and beyond.

The Assam Accord, seeking to find a solution to the problem of foreigners in Assam was signed in 1985 but it was not sufficient to prevent the emergence of radical groups like ULFA, Mizo National Front and National Liberation Front of Tripura.

During the Kargil War, ULFA openly supported Pakistan in its monthly newsletter Swadhinata.

What is the response by Indian government?

- **Military measures** – It has launched Operation Bajrang (1990) that has arrested many ULFA insurgents.
- Assam was declared a 'disturbed area', President's rule was imposed and Armed Forces Special Powers Act (AFSPA) was invoked.
- **Strategic measures** – It has allegedly supported certain factions of ULFA, like Surrendered ULFA (SULFA) in 1992 that offered to surrender and engage in dialogue with the government.
- Later SULFA allegedly carried out secret killings of ULFA cadres on behalf of the State government.

After ULFA Peace Accord, only 15% area in Assam remained under the AFSPA.

Path towards ULFA Peace Accord

- **PCG** – People's Consultative Group is an 11-member group formed by ULFA in 2005.
- It comprised noted intellectuals and Jnanpith awardee author late Indira Raisom Goswami.
- It mediated 3 rounds of talks before the ULFA walked out of the discussions and unleashed a new wave of terror.
- **Peace oriented factions** – Some ULFA commanders like Arabinda Rajkhowa proposed peace talks with the government called as Rajkhowa-led pro-talk ULFA faction.
- **Peace talks** – In 2011, the pro-talk faction signed the suspension of operation (SoO) with the MHA and the Assam government.
- **12-point charter** – In 2012, they submitted their demands to the central government, which finally responded in 2023.
- Discussions happened between Rajkhowa's faction and the Centre in 2023, leading to the recent tripartite peace agreement.

ULFA Peace Accord

- **Surrendering the arms** - ULFA cadres have agreed to surrender arms and ammunition, vacate their camps.
- They have decided to join the mainstream and to engage in the peaceful democratic process established by law and maintain the integrity of the country.
- It would be made a time-bound programme by the Ministry of Home Affairs to fulfil the demands of the ULFA.
- **Committee formation** - A committee would also be formed for monitoring the programme implementation.
- **Reservation** - 97 out of 126 Assembly seats in Assam would be reserved for indigenous people and the future delimitation exercise would follow this principle.
- **Financial support** - Rs. 1.5 lakh crore investment had been pledged in the peace accord.
- **Constitutional safeguards** - It would be ensured by protecting land rights and putting restrictions on migration from one constituency to another.

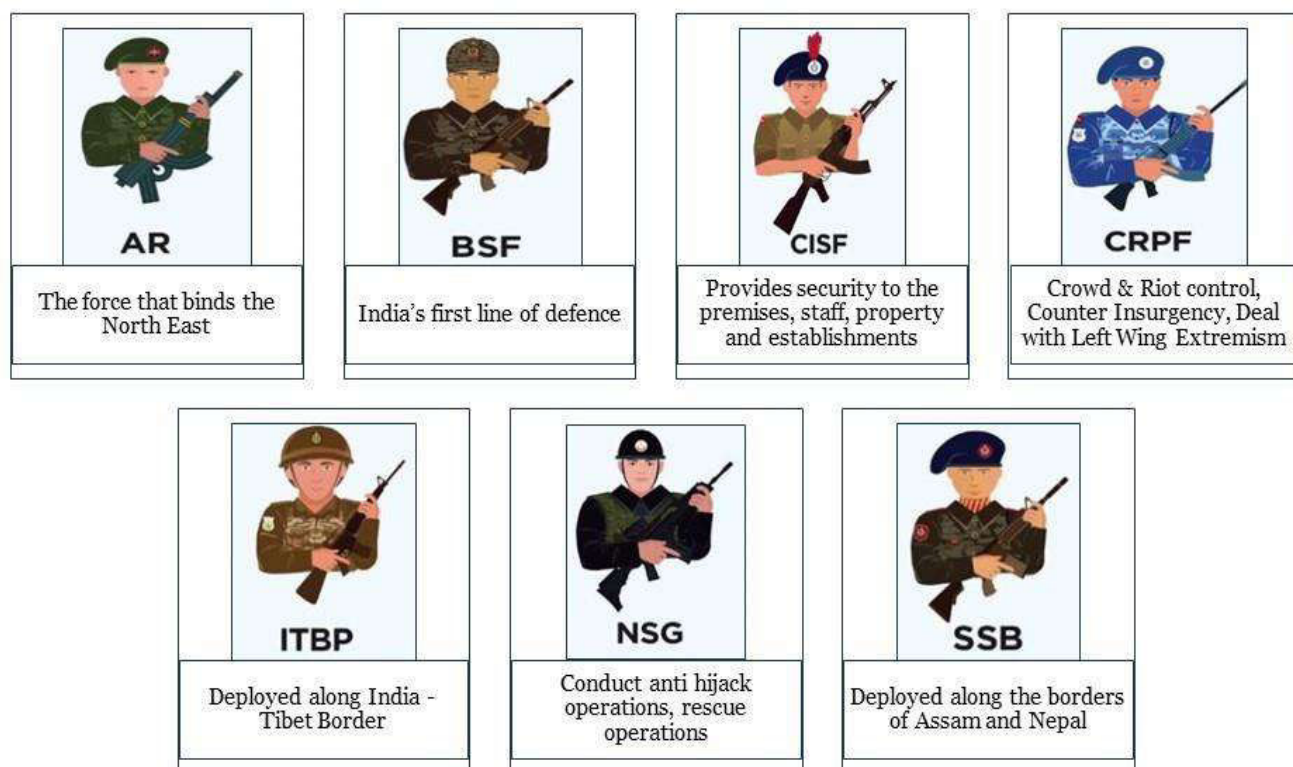
The faction led by Paresh Baruah, known as ULFA-I, has not joined the peace process. Baruah is said to be in China and has support of 100 cadres who mainly operate from the Myanmar border.

15.2 Border Security Force Extension in Punjab

Why in news?

The Supreme Court is set to hear the dispute over the expansion of the Border Security Force (BSF) jurisdiction in Punjab.

Central Armed Police Forces (CAPF)



What is Border Security Force?

- **Origin**- Formed based on the recommendations of the **Committee of Secretaries** in the wake of the 1965 Indo Pakistan War.
- Came into existence on 1st December 1965.
- **Mandate**- To guard the Indo-Pakistan and Indo-Bangladesh border.
- **Features** - It is the **world's largest border guarding force** securing the 6,386.36 km long International Border with Pakistan and Bangladesh.

Shri K F Rustamji was the first chief and the founding father of BSF.

- It is the only force of the nation with a distinctly defined *war-time as well as peace-time* role.
- BSF has been termed as the **First Line of Defence of Indian Territories**.
- It is one of the Central Armed Police Forces of the Union of India.
- Administrative control**- Ministry of Home Affairs.
- Legal framework**- It is governed under **Border Security Force Act, 1968**
- Powers** - BSF is empowered to arrest, search and seize under Criminal Procedure Code, the Passports Act, the Passport (Entry into India) Act etc.
- BSF Act allows the Central government through an order to designate an area “within the local limits of such area adjoining the borders of India” where members of the BSF can exercise powers.

Role	Location
Anti-Infiltration role	Kashmir Valley
Counter Insurgency Operations	North East India
Anti Naxal Operations	Odisha and Chhattisgarh
Integrated Check Posts	Along India and Bangladesh International Borders

What is the issue?

- The issue** - In 2021, Ministry of Home Affairs issued a notification [expanding the jurisdiction of the BSF](#) in **Punjab, West Bengal and Assam**.
 - Prior to 2021 notification** – BSF could exercise its powers **within 15 kilometres** of the border in Punjab, West Bengal and Assam.
 - After 2021 notification** - Within **50-kilometre** jurisdiction, the BSF can exercise powers under the Criminal Procedure Code, the Passport (Entry into India) Act and the Passports Act. For other central legislations, the 15-km limit remains.
- Need for the expansion of BSF’s jurisdiction**
 - To check the increased use of drones and Unmanned Aerial Vehicles
 - To enable surveillance and the smuggling of arms and fake currency
 - To conduct more search and seizures of cattle smuggling activity and to prevent the smugglers from taking refuge in the interior areas of the country
 - To make the BSF’s jurisdiction uniform across states, as the 50-kilometre limit was already in place in Rajasthan.

Why has Punjab challenged this?

- Punjab filed an ‘original suit’ against the central government in the Supreme Court in 2021.
- The Supreme Court (SC) has ‘**original jurisdiction**’ in disputes between the Central government and States under [Article 131](#) of the Constitution.

Key aspect	Punjab stand	Centre’s stand
Impact on Federal Structure	<ul style="list-style-type: none"> The Centre’s move would compromise the State’s exclusive powers to legislate on matters involving the police and public order provided in the State List under Article 246. The notification was issued without consulting with any of the states concerned. 	<ul style="list-style-type: none"> It argues that this is an issue of the defence of India, armed forces, and the deployment of armed forces. They all are a part of the Union List.
Distance of application	<ul style="list-style-type: none"> A large number of cities and towns would fall within this 50-kilometre jurisdiction. Given its small size, the 50 km radius will be a clear encroachment of state powers extending even to the capital. 	<ul style="list-style-type: none"> In Gujarat, the government had reduced the area under the BSF to 50km from 80 km. The Centre argues that to prevent trans-border crimes, it is necessary that the BSF get such powers in interior areas.

What are the issues that the Supreme Court will consider?

- Supreme Court will decide on the issue

- Whether the notification extending the BSF area of control to 50 km is an 'arbitrary' and 'unconstitutional' exercise of power of the central government?
- Whether it is 'beyond the local limits' of the border area, as provided under the BSF Act?
- What are the factors that are required to be considered for such extension of boundaries?
- Whether all states should be treated alike to decide on extensions?
- Whether the notification can be challenged under Article 131?

The 7th Schedule of the Constitution divides the legislative power between the Centre and the States.
